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FIG. 1.

VIEW AT THE ELLIOTT VILLAGE SITE.



FIG. 2.

VIEW AT CHERT QUARRY ON KING CREEK.

MEMOIRS
OF
EXPLORATIONS IN THE BASIN OF THE MISSISSIPPI.

VOLUME I.

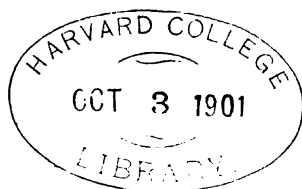
QUIVIRA.

BY
J. V. BROWER,
AUTHOR OF *The Missouri River, Etc.*

ST. PAUL, MINNESOTA, U. S. A.

1898.

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John Smith
2 vols.

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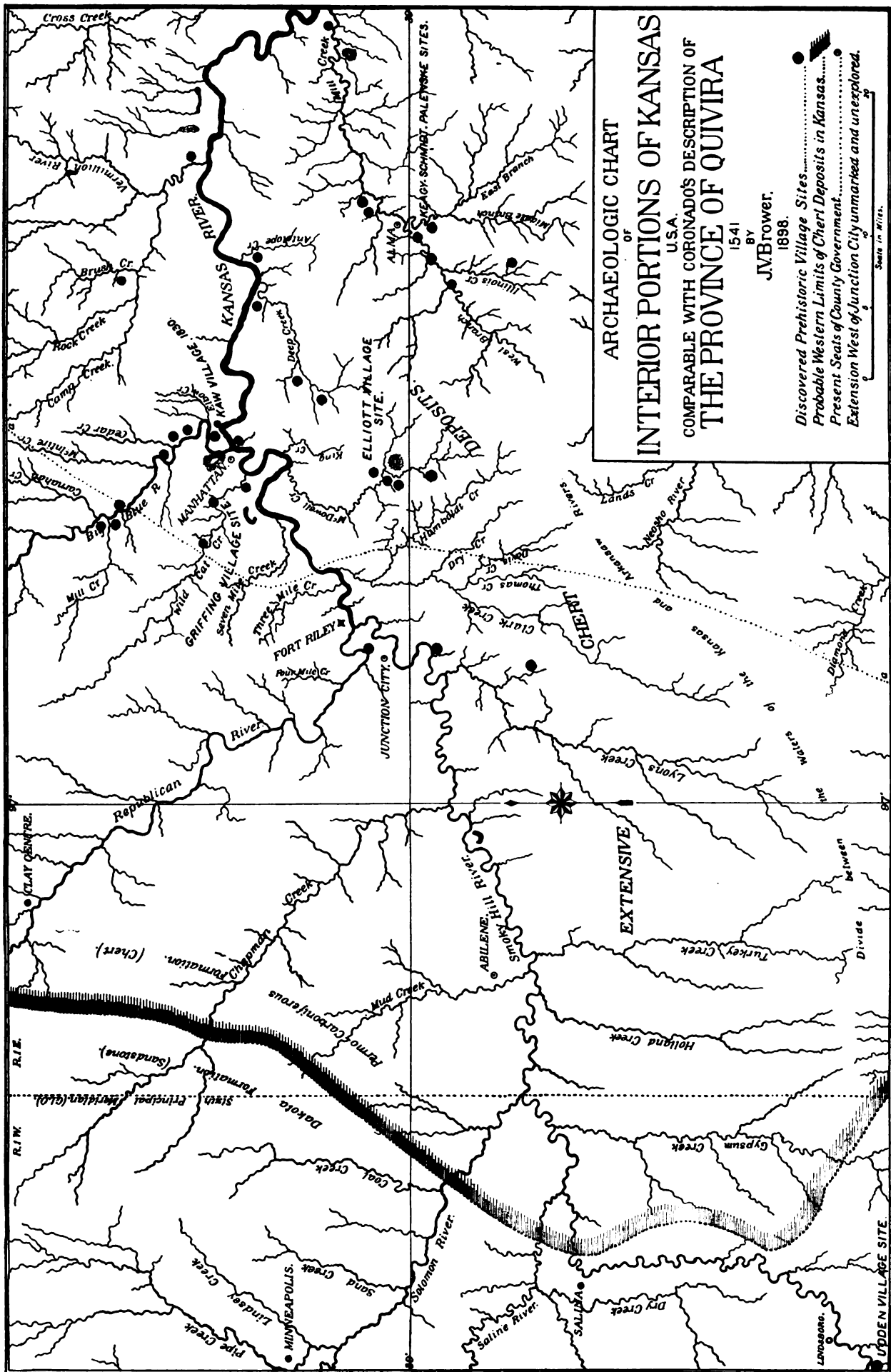
NUMBER *72*

TO THE PRESIDENT, OFFICERS AND MEMBERS
OF THE

HISTORICAL SOCIETY OF KANSAS,

THIS MEMOIR IS RESPECTFULLY
ADDRESSED BY

J. L. Brower



DESCRIPTIVE LEGEND.

TO ACCOMPANY THE CHART.

Area covered by the chart, about 5,410 square miles.

a. a represents the approximate line of Coronado's march as marked on the map of General J. H. Simpson. (P. 309, Smithsonian Report, 1869).

The chert deposits dip under the Dakota Formation, and are said to be exposed in deep ravines at remote points west of the Permo-Carboniferous Formation.

The area south of the Kansas River involved in the drift deposits, is in the neighborhood of Deep and Antelope Creeks.

The Kansas Agricultural College is at Manhattan.

Pottawatomie County is north of the Kansas River and east of the Big Blue River.

Wabaunsee County is south of the Kansas River, at Alma and Mill Creek.

Riley County is west of the Big Blue, east of the Republican and (principally) north of the Kansas River.

Geary County includes the Elliott Village Site, Junction City and Fort Riley.

Clay Center is in Clay County, Abilene in Dickinson, Minneapolis in Ottawa, Salina in Saline and Lindsborg is in McPherson County.

Precautionary to the rights of other explorers and writers, the names used to designate old Indian Village Sites have not been extended on the chart, except in the cases of the Griffing Site, the Elliott Site, the Keagy-Schmidt-Palenske Sites, the Udden Site and the Kaw Village of 1830.

The names used in this *Memoir*, to more conveniently designate other ancient village sites, from the east toward the west, are as follows:

Dike Village Site, on Vermilion River.

Baldwin Village Site, on Antelope Creek.

Winkler Village Site, on Illinois Creek.

Hill Village Site, on Big Blue River, below mouth of Carnahan Creek.

Stockdale Village Sites, on Big Blue River, near mouth of Mill Creek.

(There are two Mill Creeks on the chart).

Disney Village Site, below mouth of Cedar Creek.

Richards Village Site, south of Disney Site.

McArthur Village Site, farthest south on McDowell Creek.

Henderson Village Site, on the south side of Smoky Hill River, first above Junction City.

Other village sites are known to exist within the limits of the area covered by the chart, which have not been displayed thereon for want of sufficiently correct descriptions to enable an intelligible identification of the localities to be made.

There are many mounds, so-called, situated on the bluffs adjacent to the village sites displayed, which are ordinary places of burial, covered over with rock and earth. The main object of the chart is to show the location of the different village sites, and confusion might occur if the mounds also were extended in color thereon, and for that reason it was thought best to omit them at this time, until such further exploration can be made as will determine the location and character of all of them, which will be sufficient material for a separate *Memoir*.

The eastern surface limit of the chert deposits is very irregular, and may have been disturbed by the glacial ice-cap. Quartzite boulders are now exposed on the surface near the Vermilion River.

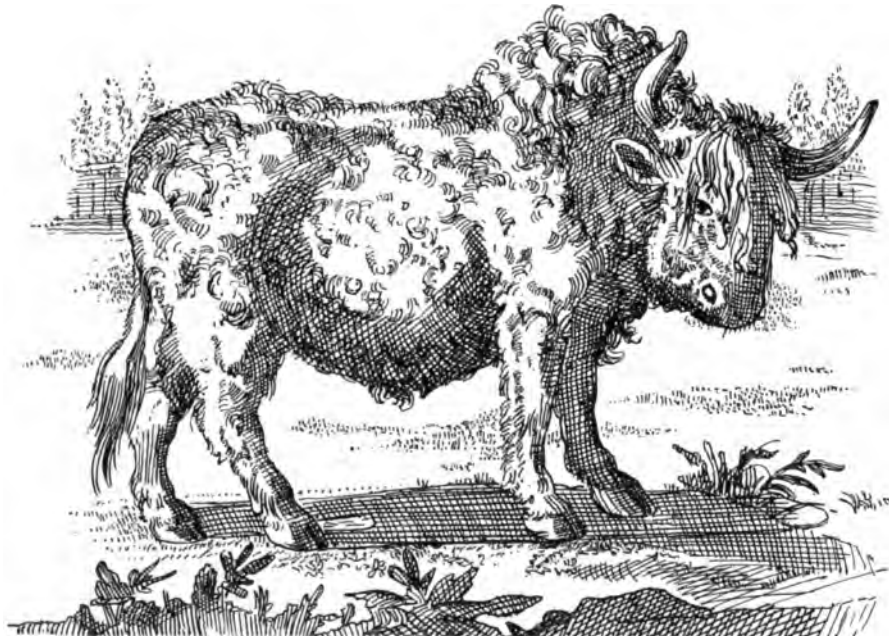
A network of railroad lines covers the area charted, and the present population is considerable, organized into civil divisions by numerous communities, which are principally sustained by the results of agricultural pursuits.



GOMARA, 1554.



THEVET, 1558.



HENNEPIN, 1704.

BUFFALO.

Tracings from Early Sketches.

PREFATORY COMMENTS.

THIS *MEMOIR* pertains principally to certain archæologic discoveries which have been made at or near the termination of the Coronado discoveries, of 1541, at Quivira; hence all other questions concerning that remarkable Spanish Expedition are at this time treated as subordinate, and are therefore abbreviated. I make this statement here so that those who care to learn of all the minute particulars of that northward march can consult the authorities.

The writings of all the historians of Francisco Vazquez Coronado and of the Spanish Expedition from Compostela, Mexico, to the valley of the Kansas and its tributaries do not present an array of facts sufficient to determine certainly the identity of the position of the terminal point reached, in 1541, by that Spanish officer and a portion of his followers, except that it was at Quivira, a locality then occupied by the wildest savages they had encountered on the buffalo plains, or elsewhere.

The conflicting opinions concerning the site of Quivira have disturbed the conclusions of the earlier writers, and a generalization characterizes the more recent historic productions, which, in all other respects, are admirable, and founded upon the most careful study and preparation by profound and accomplished students.

The researches of General J. H. Simpson, Mr. Adolph F. Bandelier and Mr. George Parker Winship, relating to the Coronado Expedition, are so valuable and complete that scarcely more than the identification of the sites of the villages of Quivira remains in uncertainty. On the question as to the exact locality, they differ to some extent. General Simpson describes the province as being on the west bank of the Missouri, between the Kansas and Platte rivers. Mr. Bandelier inclines to the belief that Quivira was, in 1541 to 1543, northeast from the Great Bend of the Arkansas River, in Northeastern Kansas, in which view Mr. Winship quite closely coincides. The name "Quivira" on the map accompanying Mr. Winship's *Memoir*, covers Central Kansas

from a point not far north of Fort Dodge, to the bend of the Republican River, near Concordia, in Cloud County.

Recent explorations in the valley of the Kansas River, and along some of its tributaries, in relation to the early Indian occupancy, resulted in the discovery and exploration of ancient village sites comparable with those described by the Spanish chroniclers of the Coronado discoveries.

In this curtailed *Memoir*, intended to perpetuate a record of the explorations mentioned, it is desired to extend and add to the sources of information, purposely obviating any unnecessary comments on the historical record as it now stands, in the various conclusions offered by different authors.

Mr. L. R. Elliott, in 1895, submitted for examination several chipped flint knives, spear-heads, arrow-points and various chert implements found in Kansas, bearing unmistakable evidences that they were made and used by a warlike people who were a hunter nation. From that circumstance, subsequent results and conclusions followed, now believed to be of sufficient importance to justify permanent preservation, as indicating the locality which, in 1541, constituted at least a part of the Province of Quivira.

The evidences collected, the ancient village sites explored and described, and the implements illustrated, constitute such a similarity, identifiable with the historic description of Quivira and its nomadic industries, that doubt is subservient to conviction in an endeavor to determine that the location of the final bivouac of the Spanish officer and the diminished number of his followers at the terminal point of their long and fruitless march, was, undoubtedly, at one of the sites in the vicinity of the upper portion of the Kansas River, especially so since there are reasons for believing that Coronado followed his guide, Ysopete, not the "compass needle," from the Great Bend of the Arkansas, northeastwardly to the villages of Quivira.

It is not claimed for the chart presented that it is exhaustive or final, as showing the complete archæologic features of the territory described. Possibly not more than one-half of the area has been sufficiently explored and examined, and it is hoped that the Society

to which this *Memoir* is addressed may cause the work to be completed, rather than that private enterprise shall be overburdened in perfecting the history of the Spanish discoveries and of Kansas.

The remarkable deposit of bluish-gray flint found in the neighborhood of the village sites described, and from which nearly all the chipped implements of the region were made, is abundant in place east of the Dakota formation of this region, which borders the surface limit of the permo-carboniferous limestone and chert, not farther west than Lindsborg and Salina, situated on the lower waters of Smoky Hill River. That fact was a perpetual invitation intensely attractive to the barbarians who depended upon chipped implements for the arms of the chase, the weapons of war and as a necessity in peace, and the supply, conveniently available about the fertile region of the upper course of the Kansas River, must have characterized the locality as so very desirable, and its location was known so far abroad, that contending tribes fought for its possession, with herds of buffalo, fruitful valleys and quarries of flint, the prizes for which the savage man staked his life.

The proofs submitted in substantiation of the identity of these populous Indian settlements in Kansas, situated in a most attractive region previous to the advent of Europeans, present such an array of facts that it does not seem possible that Coronado and his followers could have passed a hundred miles north-east from the Great Bend of the Arkansas, about which there is no longer any reasonable doubt, without hearing of and discovering a great group of aboriginal villages, the inhabitants of which, for untold decades, occupied the valley of the Kansas, subsisting on an abundant natural wealth, which was permanently available and of the easiest possible access, conditions which were never willingly ignored by the North American Indian.

ST. PAUL, January 18, 1898.

J. V. B.

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Two unpublished maps, one by Mr. F. B. Elliott and one by Mr. Griffing, from which I have drawn largely for archæologic information, were in constant use.

The authorities from which I have secured the greater assistance and which have been indispensable, are the following:

By Professor F. W. Putnam, an important descriptive letter dated December 10, 1897, classifying certain flint implements and other objects illustrated in this *Memoir*. The weapons described as tomahawks are so classed in the letter mentioned.

By Adolph F. Bandelier. *Papers of the Archæological Institute of America*, relating to the Coronado Expedition. *The Gilded Man. American Catholic Quarterly Review*, July, 1890, XV. *Magazine of Western History*, July, 1886, IV. and September, 1886, IV. *Quivira. Nation*, N. Y. (1270 and 1271), 1889.

By Richard Hakluyt, preacher. *Early English Voyages to America Before the Year 1600*. Edited by Edmund Goldsmid, Edinburg, 1885-90, III. There are several editions of this quaint literature.

By Gen. J. H. Simpson. *Coronado's March in Search of the "Seven Cities of Cibola" and discussion of their probable location. Annual Report Smithsonian Institute*, 1869, 309-340.

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By Buckingham Smith. *Relation of Alvar Nunez Cabeza De Vaca*, 1871.

By the Kansas Historical Society. *Collections* in V. Vols.

By Professor J. A. Udden. Important unpublished MS., describing the prehistoric occupancy of Paint Creek, at the most southern course of Smoky Hill River, near Lindsborg, Kansas.

By George Parker Winship. *The Coronado Expedition, 1540-1542. Memoir, with Historical Introduction and Translations. Fourteenth Annual Report of the Bureau of Ethnology*, 1892-93, 329-613. A very valuable historic monograph.

Translation of the Narrative of Castaneda.

Translation of the Letter from Mendoza to the King.

Translation of the Letter from Coronado to Mendoza, 1540.

Translation of Relacion Postrera De Sivola.

Translation of a Letter from Coronado to the King, 1541.

Translation of the Narrative of Jaramillo.

Mr. F. W. Hodge to Dr. Elliott Coues. A published letter relating to the Kansa Indians. *The Missouri River*, p. 165.

Mr. John Gilmary Shea. Expedition of Penalosa, 1882.

Mr. Cyrus Thomas. Quivira: A suggestion. *Magazine of American History*, X.

Some studies of the Spanish Accounts, 1889-92, with the late Mr. Alfred J. Hill, then an associate, are now available again. The results were published in *The Mississippi River*, 1893.

Likewise the studies which resulted in the publication of *The Missouri River*, second edition, 1897, are permissibly mentioned.

HISTORICAL INTRODUCTION.

PANFILO DE NARVAEZ, a Spanish officer, in command of an expedition designed to "conquer and govern the provinces of the main extending from the river Palmas to the Cape of Florida," finally sailed from Spain, and thence from Cuba, in 1528. The forces were divided on the coast of Florida, one portion proceeding by land, the other by sea. They never saw each other again. The fate of the ships is unknown; that of the forces by land is a history of want and suffering, ending in the death of all excepting Ortiz, afterward found by Soto, and an unfortunate, yet fortunate, few, who, west of the delta of the Mississippi, which they discovered off shore from the hulls of their miserably constructed boats, made the land again not far from the mouth of the Sabine, the boundary line between Louisiana and Texas. Alvar Nuñez Cabeza de Vaca, the treasurer, Alonso del Castillo Maldonado, Andrés Dorantes, and an Arabian negro named Estevan, were these fortunate survivors. The wanderings of De Vaca thenceforth, and his adventures and remarkable experiences among the nations of the Southwest, need not be here elaborately exploited. The first of white men to learn of the existence of vast herds of buffalo on the plains, from his intercourse with a "Cow Nation;" the fact that he undoubtedly did not wander farther north than the Canadian River; his acquired knowledge of the existence and condition of tribes north, east and west of the Rio Grande, and his safe arrival among his own people in Mexico, after eight years of suffering and uncertainty, in 1536, very briefly stated, is all that directly concerns this present inquiry.

At this time Don Antonio de Mendoza was the viceroy of Mexico, and De Vaca and his companions became his guests, from one of whom, Dorantes, the viceroy purchased the negro Estevan, as a slave, precautionary to a selfish purpose manifested in the desire to subjugate regions traversed and heard of by De Vaca and his companions, which were understood by the negro, where copper and other riches were reported by the Indians to be abundant near fixed habitations in the north.

New Galicia, bordering upon the east coast of the Gulf of California, was governed by Nuño de Guzman, who was, in 1536, succeeded by De la Torre. Torre meeting death at the hands of Indians, it was determined, by the viceroy's nomination and the commission of the king of Spain, that Francisco Vazquez de Coronado should be the new governor. This official action was consummated April 18th, 1539, while, in the meantime, Oñate, and then Luis Galindo, had charge of the affairs of New Galicia.

The viceroy, Mendoza, carefully consummated his deep laid scheme to accomplish the conquest of the country beyond the northern mountains, and it was but natural that Coronado, the new and trusted governor in the north, should be finally selected to command the expeditionary forces.

One of the first steps taken by the viceroy to verify the reports brought to him by De Vaca was accomplished when, on March 7, 1539, Friar Marcos de Niza, a Franciscan, accompanied by a lay brother and the slave Estevan, left Culiacan to proceed northward in search of the said to be populous and wealthy settlements which were to be conquered, subjected and robbed for the glory of the Spanish crown and the enrichment of its subjects. At Vacapa the negro was dispatched farther to the northward, and soon after, Niza, hearing of the fabulous Seven Cities of Cibola, by a message from Estevan and from Indians, resumed his march to verify the reports. Estevan reached one of the Seven Cities of Cibola, and was killed by infuriated Zunis. Niza went in sight of the place near where the negro was killed, saw the pueblos, and hastily retraced his steps to Culiacan and to Compostela, a town on the Pacific coast west of the city of Mexico, where he met Coronado the latter part of August, 1539. The reports of vast wealth in the north made by Niza, in what is now Arizona and New Mexico, then the occupied pueblo region of those territories, electrified the Spanish thoughts of conquest to such an extent that there seemed to be a possibility that New Spain would witness a transfer of much of its population to distant fields of usurpation in a grasping search after fabulous wealth which did not exist among the Indians, who built adobe tenements and lived on corn. Cortes, the deposed

conqueror of Montecuhzoma, and Soto, a *conquistador*, and Adelantado of Florida, were claimants for the royal favor. Mendoza's plans, however, in the face of long delays similar to the political and judicial contests of our present time, finally succeeded, and the Coronado Expedition, under the most carefully prepared instructions of the viceroy, proceeded on its memorable mission after having passed in review at Compostela. Authorities differ as to the number of officers, men and Indians, mounted and on foot, who accompanied the expedition under the captain-general in command. There were about three hundred Spaniards armed and mounted, and nearly a thousand Indians and servants, for whose equipment and subsistence, arms, ammunition, swivel guns, cattle and sheep were amply provided. The start was from Compostela, February 23, 1540. Friar Niza, Friar Padilla and other Franciscans accompanied the expedition. From Culiacan, Coronado pushed forward, in advance of the main army, with about one hundred followers, and on July 7th, after a spirited attack, captured the first of the Zuni villages, the occupants of which escaped to the mountains, when an armed peace prevailed. Explorations followed, resulting in the discovery of the Grand Cañon of the Colorado, Tiguex, Cicuye, the Great Plains, and herds of buffalo. The main army was ordered forward, and winter quarters were established at Tiguex, on the Rio Grande, not many miles southward from where is now Santa Fé. The Spanish occupancy was a menace to the natives and a sore disappointment to themselves, for absolutely no gold or other riches in quantity was found anywhere in the pueblo region. It was at this point where the Indians revolted, were besieged in two of their villages, which were overpowered, and the warriors who surrendered as prisoners were burned at the stake as a menace to enhance Spanish safety. At this time, when Coronado had brought about an unwilling peace, Quivira was first heard of by Europeans. Whatever mutterings may have occurred among the Indians while smarting submissively under the Spanish atrocities, and whatever plans may have quietly been laid to thwart their purposes, there is a certainty that the Spaniards were led to believe, by a passing circumstance, that an immensely wealthy settlement could be found farther beyond toward the east. It is probable

that the natives of Tiguex and of Cicuye, as was afterward learned, conspired to destroy their common enemy, the avaricious Spaniards, who sought their wealth, consumed their provisions and occupied their homes. It was now that a prisoner from Quivira, held as a slave by his Indian captors, communicated his wonderful story of the wealth of Quivira to the Spanish command. From his appearance he was called "The Turk," after the fashion in which he wore his hair.

In the early spring, it was in April, 1541, Coronado and his entire command evacuated the country of the Tiguex and marched for Quivira under the guidance of "The Turk," passing Cicuye and reaching the plains. Entering that uncertain region filled with herds of buffalo, and led on by a treacherous guide, it is wonderful that they ever returned. Mr. Bandelier has carefully and intelligently traced their probable route eastward, until, bearing to the right in their march, after more than a month "The Turk" admitted, while under suspicion, that he had lied, though insisting that Quivira existed farther beyond. Mr. Winship says: "From the natives of the plains they learned that there were no settlements toward the east, the direction in which they had been traveling, but that toward the north, another good month's journey distant, there were permanent settlements." (The Coronado Expedition, p. 396.) Those permanent settlements were at Quivira, in Kansas, as will be shown. Mr. Bandelier has been conscientiously careful not to suggest that Quivira must have been a permanent settlement in order that its location and importance could have been known far abroad.

At this time Coronado selected about thirty horsemen, against the protests of the main body of his followers, and, under the guidance of Ysopete, an Indian of Quivira, who was returning to his people with Coronado, and who had insisted that "The Turk" was misleading the Spaniards, the march northward to Quivira was commenced, leaving the main body of his followers encamped where the thirty horsemen started, awaiting instructions.

It would be a very difficult task to identify the place where Coronado separated from the main body of his followers, on the buffalo plains, but subsequent events make it possible to quite surely identify part of his route of travel northward under the guidance of Ysopete.

It seems probable that they used a compass needle at that time, presumably suspended from a thread, but there is no certainty concerning the condition of the needle they used, nor of the exact magnetic declination at that time. So much depends upon this question of following the compass needle that I have taken the pains to consult unquestioned scientific authority on that subject, and it is with pleasure that the results are now available with much credit to the gentleman who has so carefully stated his conclusions, which follow:

REMARKS ON THE QUESTION OF THE MAGNETIC DECLINATION
IN THE REGION OF THE GREAT BEND OF THE ARKANSAS
RIVER IN THE YEAR 1541.

TREASURY DEPARTMENT, OFFICE OF THE COAST AND GEODETIC SURVEY,
WASHINGTON, D. C., September 22, 1897.

In the absence of any direct observations of the magnetic declination at so remote a period and (then) unknown region, science can not give, at present, any satisfactory reply to this question; we can therefore only attempt a rough estimate. About the time of Coronado's expedition and even for a century and more later on there were no available data within a thousand miles of Central Kansas, since, as far as known, neither Coronado nor any of his captains left any record or made any observations of the direction of the needle, nor have we any information of the variation from Alarcon's fleet when sailing from Natividad to the head of the Gulf of California; for San Blas we have some vague information about the year 1630.¹ Even for the city of Mexico our earliest observation dates from 1769.

The difficulty of assigning a value of the declination for a date preceding our time by three and one-half centuries and for a point located far inland, lies in our ignorance of the law of secular variation when carried to a time more remote than two or two and one-half centuries from the present.

To those who have made the secular variation a special study it is known that the law of change, as at present understood, will not hold for remote periods, and, what is most embarrassing in the research, that the older observations are of an unreliable character. These remarks specially apply to the region under consideration.

The latest researches in this field are by Dr. Van Bemmelen.² The following values were taken by wide interpolation, from his charts for

1. Appendix No. 1, Coast and Geodetic Survey Report for 1895.

2. *De Isogonen in de xvi. en xvii. Eeuw*; Proefschrift door W. Van Bemmelen, Utrecht, 1898.

the region where Coronado was supposed to have separated from his army in about latitude $38^{\circ} 20'$, longitude $98^{\circ} 45'$. In 1540 from conjecture about 0° , in 1580 about 3° W., in 1610 about 6° W. and the same in 1640; in 1665 the declination apparently had changed to 3° E., but in 1680 it seems to be again westerly, about 5° .

An isogonic chart based upon the data given in the *Arcano del Mare* (Florence, 1646)³, and constructed by the writer in 1888, would make the declination about 6° W.⁴ It must not be supposed, however, that the close accord of these several values and the consequent small variation is any criterion of the reliability of the results. Be this as it may, all that can be affirmed respecting the value of the declination at the place and in the time of Coronado is that it was small, possibly zero, or may be slightly inclined to the westward. Though vague, this statement, nevertheless, will be of assistance to the historian, since, for the comparatively short distance to which he means to apply it, the deviation from the true route would not be great. Coronado, in his march to Quivira, was pursuing a will-o'-the-wisp, but the historian will endeavor to locate his terminal point.

CHARLES A. SCHOTT.

Professor Schott's statements are so very carefully formulated that even the casual reader cannot but believe that the compass needle, if they used one in 1541, probably led the Spaniards west of north, and that would not be at variance with Mr. Winship's opinion, that Coronado started north from a point "somewhere along the North Fork of the Canadian" River.

Coronado and his twenty-eight or thirty horsemen undoubtedly crossed the Arkansas River not very far from $99^{\circ} 30'$ west longitude, and they called the river Saints Peter and Paul, following its course northeast to the region of the Great Bend. From the time of the crossing of the river Saints Peter and Paul, thence following its course northeast, several days elapsed before they left the river and turned therefrom to seek the settlements at Quivira. One question seems now to be fairly answered:

Ysopete, not the "compass needle," was the guide the Spaniards followed after they crossed the Arkansas.

That Indian was a native of Quivira, and knew the way; hence it is accounted for that they changed their course and followed the river

3. Appendix No. 6, Coast and Geodetic Survey, Report for 1888.

4. The present declination is 10° E., and the annual decrease $2\frac{1}{4}$. We have no definite information about this region prior to the explorations of the U. S. Engineers in 1872.

for several days, probably to a crossing of Walnut Creek near its mouth, and to an encampment east from there, before they left the Arkansas River to proceed to Quivira, under the guidance of Ysopete, about one hundred miles beyond. If they thence proceeded by the "compass needle" about one hundred miles north, they would reach what is now Smith County, on the northern border of Kansas, a hundred miles west of the great chert deposits, existing near the surface along a portion of the Kansas River, on both sides of that stream, and up the valleys of the Republican and Smoky Hill rivers about fifty miles.

If Coronado and his followers, guided by the Quivira Indian, Ysopete, proceeded about one hundred miles to the northeast in a direct course from the Great Bend of the Arkansas, starting from a point near to or a little east from the mouth of Walnut Creek, the expeditionary forces would very closely approach the Republican River not far above where is now Junction City, crossing in the line of march, Cow Creek, Smoky Hill River, Saline River, Solomon River and Chapman and other smaller creeks. That would necessarily place so many water courses in the way, that they would have been mentioned and described at the time Coronado recorded the result of his observations.

It is more than probable that Coronado and his handful of followers at this time, approaching closely the settlements of Quivira, which they reached about the middle or latter part of July, proceeded almost direct from the Great Bend of the Arkansas to the permanent habitations of the tribes and bands next and nearest beyond, then called Quivira. Here they remained for about twenty-five days, strangled "The Turk" for his perfidy, explored the surrounding country in different directions, observed the customs of the wildest Indians they had yet encountered, heard of differing settlements beyond, erected a cross of wood with an inscription, but found no gold and no houses of stone, only savages living in huts, eating raw meat and drinking the blood of the buffalo, and using intestines for vessels and buffalo-chips for fuel. The soil was as rich as that of Spain, yielding fruits; there were numerous small streams, and a larger river beyond; the savages used flint knives, were archers and warriors, and different languages were spoken.

The "Narrative of Jaramillo" in Mr. Winship's *Monograph*, pp. 589-590, in part says:

* * So that on Saint Peter and Paul's day we reached a river which we found to be there below Quibira. When we reached the said river, the Indian recognized it and said that was it, and that it was below the settlements. We crossed it there and went up the other side on the north, the direction turning toward the northeast, and after marching three days we found some Indians who were going hunting, killing the cows to take the meat to their village, which was about three or four days still farther away from us. Here where we found the Indians and they saw us, they began to utter yells and appeared to fly, and some even had their wives there with them. The Indian Ysopete began to call them in his language, and so they came to us without any signs of fear. When we and these Indians had halted here, the general made an example of the Indian Turk, whom he had brought along, keeping him all the time out of sight among the rear guard, and having arrived where the place was prepared, it was done in such a way that the other Indian, who was called Ysopete, should not see it, so as to give him the satisfaction he had asked. Some satisfaction was experienced here on seeing the good appearance of the earth, and it is certainly such among the cows, and from there on. The general wrote a letter here to the governor of Harahey and Quibira, having understood that he was a Christian from the lost army of Florida, because what the Indian had said of their manner of government and their general character had made us believe this. So the Indians went to their houses, which were at the distance mentioned, and we also proceeded at our rate of marching until we reached the settlements, which we found along good river bottoms, although without much water, and good streams which flow into another, larger than the one I have mentioned. There were, if I recall correctly, six or seven settlements, at quite a distance from one another, among which we traveled for four or five days, since it was understood to be uninhabited between one stream and the other. We reached what they said was the end of Quibira, to which they took us, saying that the things there were of great importance. Here there was a river, with more water and more inhabitants than the others. Being asked if there was anything beyond, they said that there was nothing more of Quibira, but that there was Harahey, and that it was the same sort of a place, with settlements like these, and of about the same size. The general sent to summon the lord of those parts and the other Indians who they said resided in Harahey, and he came with about 200 men—all naked—with bows, and some sort of things on their heads, and their privy parts slightly covered. * *

Coronado thence departed the middle or last of August, 1541, and never returned.

The attention is now directed to archæologic and other conditions, from fifty to one hundred and twenty-five miles northeastwardly from the Great Bend of the Arkansas River.

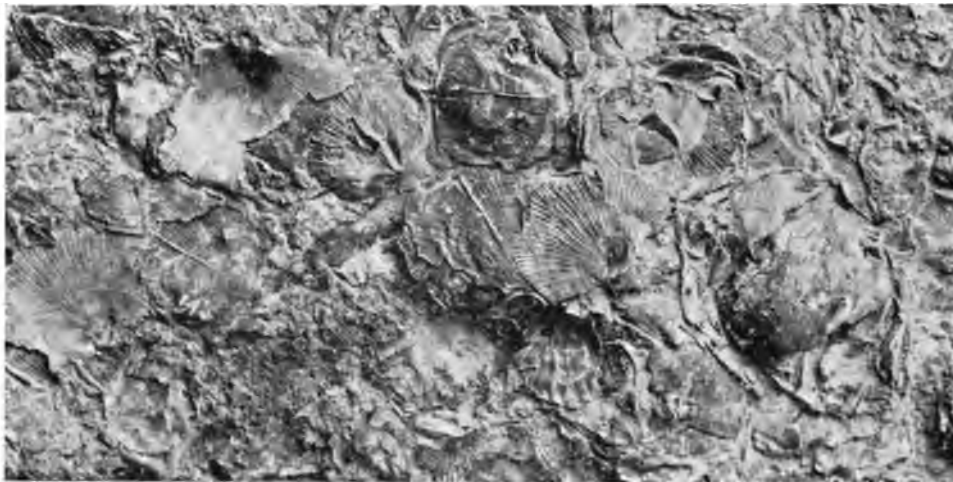
QUIVIRA.

§ 1. PRELIMINARY CONSIDERATIONS.

Opposite the mouth of Blue River, Riley County, Kansas, picturesque bluffs, to some extent containing marine deposits, overlook the fertile valley of the Kansas River.

The bluffs are the natural elevation of that portion of the Great Plains west of the Mississippi, bounded by the limits of historic Kansas, and the valley below, fringed with groves of walnut and elm, is one of the most fertile and productive within the limits of the north temperate zone.

QUIVIRA. PLATE II.



FOSSILIFEROUS LIMESTONE SLAB, FROM RILEY COUNTY, KANSAS.

A slab of the fossiliferous limestone deposit, exposed by erosion near the base of the bluffs, has been submitted to competent scientific authority for opinion as to its identity, with the following result:

GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA.

MINNEAPOLIS, MINN., November 2, 1897.

HON. J. V. BROWER, St. Paul, Minn.

MY DEAR SIR:—The fossils of the limestone slab which you left at my office indicate the age of the upper coal measures. They are identifiable as follows:

Streptorhynchus crenistria Phillips.
Meekella striatocostata Cox.
Syntrilasma hemiplicata Hall.
? *Productus cora* D'Orbigny.
Setopora biserialis Swallow.
Fistulipora nodulifera.

As determined by Mr. F. W. Sardeson.

Very respectfully,

N. H. WINCHELL.

This official identification places the time of the deposit illustrated in the Carboniferous period of the Paleozoic era, undoubtedly more than twenty-five millions of years immediately preceding the present. The significance of this geologic reference can best be understood when it is stated that central near the mouth of Blue River, and extending from north to south across portions of the territory considered and described, extensive deposits of a bluish-gray chert are involved in strata and in concretionary nodules, in contact with the magnesian limestone which is extensively natural to central portions of Kansas.¹ The chert mentioned is a flint of fine texture, admirably suited to the necessities of prehistoric man. It has been ascertained and will be hereafter demonstrated that the earliest inhabitants resorted to the locality in great numbers, quarried the flint, maintained workshops, located villages, manufactured chipped implements in abundance, and probably fought for possession of this most desirable territory and its then important natural wealth and resources.

1. "During the latter half of Cretaceous time a vast inland or mediterranean sea, far surpassing the size of that which now divides Europe from Africa, stretched from south to north across this continent, reaching from the Gulf of Mexico over the broad area called the Great Plains to the Mackenzie River basin and the Arctic Ocean. In the last, or Laramie division, of the Cretaceous period the water of this sea became brackish and finally fresh, being shut off from its former connection with the ocean by the gradual rise of the land borders on the south and north. A great depth of Cretaceous sediments, marine below and lacustrine above, had been laid down on all the area of the plains."—*The Missouri River*, p. 8.

Above the valleys of the vicinity where the outcropping of the chert and limestone occurs, the plains of Kansas extend in every direction, a gradually rolling and undulating prairie, still bearing upon its surface the unmistakable evidences of the former existence of vast herds of buffalo. Rivers, creeks and brooks abound, fringed with a scanty growth of deciduous timber, and each is a water course draining a valley of greater or lesser importance, according to the length and size of the stream.

In each of these valleys, wild grapes, plums, sumac and various nuts mature annually and the soil is referred to as second only in its fertility and productiveness to the Red River Valley of the North; the bed of the glacial Lake Agassiz. Productive cornfields and gardens are now limited only by the extent of the numerous cultivated farms.

A portion of the locality is thinly covered with glacial drift, yielding to some extent diorite and Sioux quartzite.

Briefly and succinctly stated, every physical condition of the Quivira of Coronado, as described by the chroniclers of his time, can be favorably compared with the Valley of the Kansas, its waters, fruits, fertility, and the extent of the surrounding plains.

The chert deposits mentioned were so valuable and necessary to prehistoric man, and so attractive to the ancient warrior and hunter, who had only his two hands, his necessarily sharpened intellect and quickened ingenuity, and the raw material from the quarries of flint, with which to gain subsistence and maintain life, that the locality became his natural habitat.

His village sites, lodge circles, mounds, flint spears, knives, arrow points, chipped implements, stone axes and celts, mortars, pottery vessels, kilns, ornaments and ceremonials, his pipes and his calcined remains, indicate that from the lower waters of Smoky Hill and Republican Rivers, above where they unite to form the Kansas, to the mouth of Mill Creek, in Wabaunsee County, along both sides of the valley, the activities of ancient man brought into existence thousands of imperishable weapons, utensils and chipped implements, which now lie scattered about over the territory referred to, only sufficiently beneath the natural surface to make the search for them an interesting and

fascinating pursuit after an accentuated knowledge of ancient customs on the western plains.

The village sites mentioned are so numerous that they are scarcely exceeded in number by the cities and villages of the present population which are situated within the limits of the identical locality described.

Those who have preceded me in archæologic examinations in the upper valley of the Kansas, so far as I have been enabled to learn of the results of their work, or, in case of death, their surviving relatives, have been invited to contribute freely to the pages of this *Memoir*, and in conspicuous instances the request has been complied with.

Before proceeding with the narrative description of occurrences and discoveries resulting from my own explorations, it seems just and desirable to consider the importance of the work of those who originally instituted inquiries leading up to the present effort to determine the ultimate limit of Coronado's northward march. All the earlier explorers now living seem to have abandoned the work without having placed the results of their researches in such connected and published form as would sufficiently illustrate the full significance and importance of the work they undertook in Kansas, and left incomplete.

Mr. L. R. Elliott, of Manhattan, Kansas, the first to call my attention to some remarkable flint implements found not far south from the city where he resides, has rendered the most valuable aid in perfecting this work, and a descriptive letter from his pen is perpetuated as an important contribution to the subject matter of this *Memoir*.

PERPETUATION OF A DESCRIPTIVE LETTER WRITTEN SUBSEQUENT TO EXPLORATIONS IN THE VALLEY OF THE KANSAS RIVER, WHEREIN ARE MENTIONED THE DEPOSITS OF FLINT, THE WILD FRUITS, AND THE VILLAGE SITES AND TUMULI OF THE EARLIEST MAN.

MANHATTAN, KANSAS, November 6, 1897.

MY DEAR MR. BROWER:—The evidences of prehistoric occupancy of this locality are very apparent to those who have given the subject study.

But little time has been spent by local students in examining the evidences that exist. Most of our people who have occupied the country for years, here, have been too much engrossed with other matters to give the subject of ethnology any considerable attention.

The writer is one of those who, though living for more than a quarter of a century in this section, has been too little interested in the prehistoric occupants to give anything but a passing notice to the discoveries reported; and he has but seldom joined in the exploring expeditions that have been organized. However, those by the State Historical Society were cordially supported, and the only regret is that they were not more complete.

We have occasionally explored a mound, among the large number that exist on the bluffs along the Kansas and the Blue rivers. These have developed the usual decayed bones, small arrow points, bone or shell beads, but seldom anything more interesting. That the several peoples who resorted to this mode of sepulture, *i. e.* burial, on the highest bluffs in their vicinity, were probably of the same race, though their mounds are somewhat widely scattered, would seem to be a reasonable deduction, from the similarity of the contents of the mounds explored; but that they were not preceded by another, and in many respects a different people, can only be a matter of conjecture. That the builders of these little burial mounds were succeeded by another people, and then by another, indefinitely up to historic times, is more than a conjecture; it is evidenced by the different sorts of stone implements found in the same localities. What a revelation it would be could we decipher from these slender remnants of the remote past the history of the tribes who roamed over these hills and valleys!

It was during a period of comparative leisure that my attention was attracted to some peculiar stone implements found at a point about twelve miles south of Manhattan. The abundance and peculiarity of these implements led to a visit to the locality mentioned, and this to greater interest and to more remarkable results in the search for the same unusual style and quality of chipped flints. They were so different from the ordinary flints usually found on the Indian village sites, and so unlike the products of burial mounds, that our investigations continued.

About this time, in response to my request, you sent me a copy of your Memoir on *Prehistoric Man at the Headwaters of the Mississippi River*, and this led to a transmittal to you of some of the implements (which unfortunately were destroyed by fire in St. Paul), and later to your visits to this section, and especially to the locality that you have



QUIVIRAN FLINT POINT. †.
FROM THE ELLIOTT VIL-
LAGE SITE.

called the Elliott Village Site, on the John Briggs' farm, in Sec. 1, T. 12, R. 7 E., in Geary County.

There are some facts in reference to this particular locality that it is well to consider in drawing conclusions concerning the former occupants, whose crude, yet peculiarly interesting implements have now been noticed.

There is a belt of what is commonly termed magnesian limestone, that stretches through the State of Kansas from north to south, having an average width of about forty miles. The Blue River, which, coming in from the north, joins the Kansas River at Manhattan, represents nearly the center of this belt, east and west. The quality of the stone found in this belt varies from this very soft limestone that may easily be utilized in economic industries, to a flinty, hard rock that is difficult



QUIVIRAN IMPLEMENT. †.
FROM THE ELLIOTT VIL-
AGE SITE.

to work. In certain parts of the region mentioned the flinty stone lies in strata between the softer rock, in such manner that the two are readily separated; and, in exposed places, as along ravines and the banks of streams, the rock is disintegrated by the action of water, and the flint or chert falls to the bottom of the cliff, and is there to be found in abundance. These flinty formations occur also in the shape of nodules in the body of the limestone; and in this form are found on the edges of the bluffs within the belt mentioned. There is a considerable deposit of this gray-blue flint in the vicinity of Stockdale on the Blue River, and it is found south of the Kansas River along the streams tributary to it. An especially accessible quarry of flint, in well defined strata, is found

on King Creek, a tributary of McDowell Creek. This is so well defined that the photographer has caught a very good view of a section of it. At other points on upper McDowell Creek and its tributaries, it is also found. (See Plate I, facing title page).

On the Elliott site, at the north side of the same, and on the ground now occupied by Mr. Briggs' orchard, there is a very considerable quantity of this material, of the same color and texture as that represented by the implements found on the site. This mass of material has the appearance of having been brought to the spot for some purpose, since there is no outcropping of the kind there. It is in what, before the orchard was planted, was part of the treeless bottom land that slopes from the gradual bluff at the north to the timbered creek that bounds the village site on the south. This locality may be noticed in the view sent you, for in it the orchard is very distinct. A considerable mass of material must have been required from which to produce

the many implements used, and is it not reasonable to suppose that here was the place of deposit of material, if not also of manufacture?

Alluding again to the belt of limestone: It is bounded by an irregular line that does not extend west of Range 4 East, in this part of the state, nor east of Range 11, but bears a little west of that as it reaches the south line of the state. The presence of the flint is prominent in the section that constitutes the water shed into McDowell Creek.

All the branches of McDowell Creek are quite well timbered, and the skirts of the timber and sheltered ravines abound in wild plums, grapes and raspberries; and the slopes are occupied by sumac that gives to the scene in early fall a coloring of scarlet that is an attractive contrast to the green of the oak, elm and hackberry. All the larger creek bottoms abound in black walnut, which yields abundance of nuts.

In the southerly direction, as we climb the divide that separates the waters that flow northerly into the Kansas River from those that take a southerly course into the Neosho, all timber disappears, and even the sumac finds no place,



POINT. †.

KNIFE. †.

SCRAPER. †.

FROM THE ELLIOTT VILLAGE SITE.

and for a good many miles the country is a high rolling prairie, on which buffalo formerly grazed in great numbers.

In traversing the country immediately about Manhattan recently, the sites of several ancient villages have come to my notice; most of them, however, are not newly discovered. On Deep Creek are several, and on Mill Creek near Alma, twenty-two miles distant, are others. Also, near Manhattan, on the Blue, and on the Wild Cat, and eastward along the Kansas, they are found. These villages, however, were the abodes, probably, of occupants more recent than those who buried their dead in the mounds.

The very few evidences of sepulture constitute a puzzle. What disposition did these peoples make of their dead? I refer to the ancient occupants; of the later ones there are evidences in the shape of graves. Take, for instance, the Elliott Village site. It must have been occupied by hundreds of persons. Deaths certainly occurred among them. But

there are no evidences of sepulture. A half dozen mounds are all that can be found in the vicinity. There are no evidences of cremation. Indeed, in only one instance have indications of the use of fire been found. A few stones near together, bearing the marks of fire, and near by a few bones, broken, and the tooth of probably a buffalo, are the only indications left. But this may have been the camping place of some pioneer, used long after the occupants of the site had disappeared.

The site is a tilled field, and has been under the plow for a good many years; yet, at every plowing, and at all times of cultivating the crop, a new supply of flint implements is unearthed. The number is so large, the source of supply so seemingly inexhaustible, that there must have been a large number of occupants who maintained their abode there.

Southeasterly from the Elliott site two branches of McDowell Creek come together, thus forming a very considerable stream. In the angle between these converging streams there is a steep bluff, surmounted by a round topped eminence, which may well have served as a point of observation or for the purpose of transmitting signals, as it commands a wide view of the adjacent country and can be seen from a long distance in nearly every direction. It stands on the northwest quarter of Sec. 7, T. 12, R. 8 E.

This eminence we have named MOUNT BROWER, in recognition of the services rendered by yourself in bringing to public notice the unique weapons and implements of the occupants of this ancient site, and for indefatigable efforts to discover something of the record of the people who lived here.

The abundance of wild plums and grapes found on the banks of the creeks in the vicinity would have afforded considerable sustenance for a people, and to these were added berries and walnuts, and fish from the creeks. There must also have been many rabbits, squirrels, prairie chickens and quails, for it is the natural home of these. But the buffalo that ranged over the treeless miles of grassy land were sufficiently numerous to supply all the needs of many people. The implements found do not suggest agriculture as an occupation that was engaged in extensively. Indeed, among all the implements found on the Elliott site, very few can be classed with those for tilling the soil. The few mortars, and fewer mill-stones, indicate that but little was done in the way of grinding corn.

Among the peculiar, rather crude implements that are so abundant, and that are all made of the local material, apparently, are found a few of better workmanship and of a different material, either light gray or pink tinted, and highly polished. Were these the work of a preceding people? Or were they the spoils of war or the gift of a friendly tribe? Evidently they were made elsewhere, for no such material is local; or, if not made elsewhere, the material must have come from a distance. I await with great interest the statement of your conclusions from the

investigations you have made. But the determination of these questions, as far as I am concerned, is left with you, who, from a knowledge of all the facts and from long familiarity with Indian tribes and customs, can deduce the more correct conclusions.

Referring again to the flint deposits, I have, since the above was written, had an interview with Professor Erasmus Haworth, at Lawrence, who has had charge of the geological survey of Kansas. He informs me that the flint belt will average more than forty miles in width. This geologic formation is called the Permian, or, as Professor Williston calls it, the Permo-Carboniferous. The presence of flint or chert is recognized by these geologists. The western line of the outcropping is not as well defined as the eastern. It is, in fact, the Permo-Carboniferous formation of Kansas, and the dip is toward the west, and the formation disappears under the Dakota in an irregular way a short distance east from Lindsborg, its most western surface limit, about sixty miles east of Great Bend.

Some reference may now be made relating to nomenclature.

The name "Mill Creek," applied to the stream that empties into the Blue River at Stockdale, was given at a date so early that the memory of man seems not to run to the contrary. Henry Condray settled on the creek, near the mouth of it, in 1855, and before the end of the next year had a water mill in operation and ground grists for many customers. We have locally supposed that the creek was named because of the construction of this mill, but Mr. Wm. Condray tells us that the stream bore the name "Mill Creek" before his father settled on it.

At that time the post office was called "Henryville," named for Mr. Henry Condray, who was also postmaster. The mill was partly swept away and badly damaged by a flood, and Mr. Condray removed the remnants to the mouth of Fancy Creek farther north, and there established himself.

Henryville was discontinued as a post office, and when one was again established, some years later, those locally interested accepted the name "Stockdale," which was suggested by Mr. A. Sweet; and hence the name that the post office and settlement at this date bears. It certainly was a less common name than Mill Creek, there being fifteen post offices of that name and only three then named Stockdale.

Cedar Creek joins the Blue River in Sec. 30, T. 9, R. S. E., just north of the Disney Village Site. This creek was called "Sebia-Webia" in the Wyandotte language, so says Mr. Robert Hays, an old settler on the creek, and this was understood to be "Little-Boy," or little anything in the masculine gender. From the abundance of cedars on this stream, it was named "Cedar Creek" by the early settlers, among whom was Sam'l Dyer, who settled at the mouth of the creek in 1853 and was in government service, running a ferry over the Blue River near the mouth of the creek, at a point called Juniatta.

Mr. Hays also thinks that the Big Blue River was called "Wahah-Abo" by the Kaw Indians, signifying Big River.

McIntyre is the next creek that comes into the Blue north of Cedar Creek, and it joins it within a mile of the mouth of Cedar Creek, just around a big bend in the river. This creek was named for one of the early settlers. It previously bore an Indian name equivalent to "a deer."

Carnahan Creek, which enters the Blue in Sec. 33, T. 8, R. 7, nearly opposite Stockdale, was known by a Wyandotte Indian name signifying "Elk." Samuel Carnahan settled near the mouth of this creek in 1854, and the stream was thereafter called by the name "Carnahan Creek."

When Riley County was organized in 1855, it took the name of the fort which existed on the Kansas River just eastward of the confluence of the Republican and Smoky Hill rivers, which there combined to form the Kansas. The fort was established in July, 1853, and given the name of "Riley" for General Benjamin Riley, a U. S. Army officer.

The County of Riley, when established, extended from a point several miles eastward of its present eastern line, nearly to what is now the east line of Colorado. It was a large and important county and took its name from the largest military post within its extensive bounds. The county has been so far cut down in territory that Fort Riley is now on its southwestern border.

Pottawatomie County, on the east of Riley, was named for the Indians of the same name, who occupied a large reservation mostly in that county.

Wabaunsee, on the southeast of Riley, is said by Richardson in his "Beyond the Mississippi," page 97, to be from "Wau-bon-sie" (the dawn of day), the name given to a Pottawatomie leader who attacked an enemy just at daybreak. This is the only bit of information I have been able to find as to the origin of the name "Wabaunsee."

I have written at considerable length, for the subject is full of interest, and with the hope that I might convey some information concerning the prehistoric conditions in the vicinity of Manhattan, and in the belief that your own ideas, that Coronado reached the Kansas, are substantiated, I remain,

Very truly,

L. R. ELLIOTT.

There are other descriptive papers intended for use in this *Memoir*, available when the explorations or village sites therein described, shall have been reached in the selected order of discussion.

At this writing there are three quite distinct classes of village sites to be considered, and the Udden site near Lindsborg may possibly constitute a fourth, according to the interesting researches of Professor J. A. Udden.

After very careful study and consideration, following an exploration on both sides of the upper waters of Kansas River, it seems certain that these numerous village sites should be classified as follows:

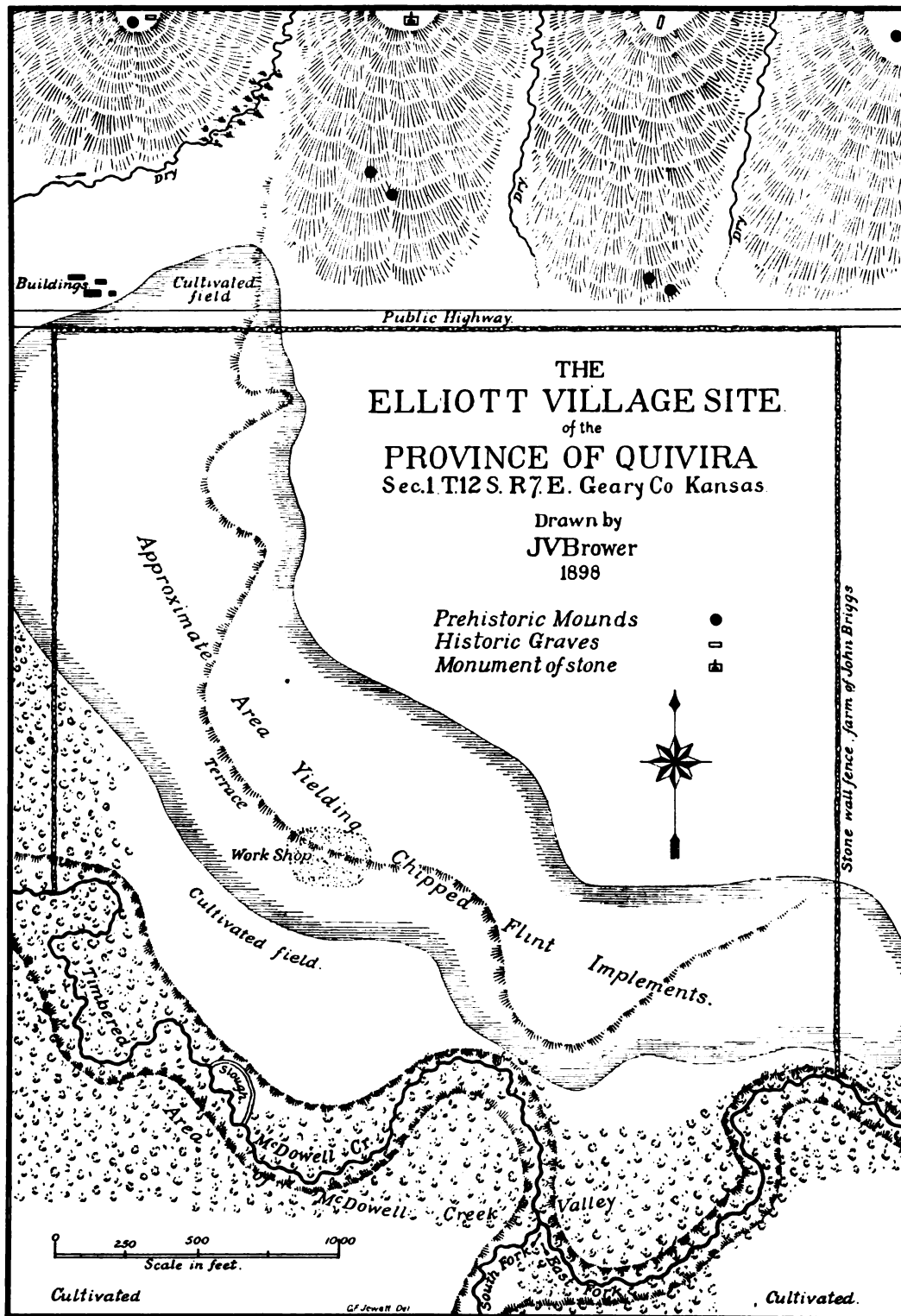
FIRST.—Village sites of a more or less sedentary people who were quite permanently located on both sides of the Kansas River. They made and used earthen vessels and the most exquisitely chipped specimens of flint implements, constructed mounds of stone and earth, and in some cases calcined the remains of the dead.

SECOND.—Village sites of a wild and barbarous people who made very few, if any, earthen vessels, and whose chipped flint implements are rudely and roughly made, and who infested the plains as hunters and warriors.

THIRD.—Village sites which yield evidences that they were occupied alternately by people who widely differed in their customs and habits, the chipped implements of the first class and of the second class being promiscuously intermixed over an identical field of observation.

Of these classes, in the order of designation, the Griffing, the Elliott, and the Keagy—Schmidt—Palenske village sites are consecutively representative. It is for that reason, among others, that separate charts of each have been prepared for insertion herein when the peculiarities of each class of sites is taken up for description and consideration. The sites on Mill Creek near Alma so closely observed and entertainingly described by Mr. Keagy, constitute what seems to be a strikingly interesting field of strife and possibly a fierce warfare for predominance and for possession.

The opinions stated and the conclusions arrived at are based upon the most careful study of all facts ascertained up to this time, and, while there is always the possibility of error of judgment, there can be no doubt interposed legitimately questioning the identity of the prehistoric evidences discovered, illustrated and described.



SKETCH MAP OF THE ELLIOTT VILLAGE SITE.

§ 2. DISCOVERY OF THE ELLIOTT VILLAGE SITE.

A PREHISTORIC SETTLEMENT SITUATED UPON McDOWELL CREEK, GEARY COUNTY, KANSAS, AND A CURTAILED DESCRIPTION OF MANY OF ITS PECULIARITIES, ITS FLINT WEAPONS AND IMPLEMENTS, ITS QUARRIES, AND THE SIGNIFICANCE OF ITS LOCATION AND IMPORTANCE, AND CONCLUSIONS PERTINENT TO THE CHARACTER OF ITS ANCIENT INHABITANTS.

The Elliott Village Site is situated upon Section 1, Township 12 S., Range 7 E., Geary County, Kansas, on the north side of McDowell Creek, due south from the Kansas River about six miles.

Its position, dead reckoned from the official surveys, is as follows:

North latitude $39^{\circ} 1' 50''$.

West longitude $96^{\circ} 37' 30''$.

The site of the village is principally within the limits of the cultivated farm of Mr. John Briggs, and a view of the premises is given in Plate I, facing the title page. McDowell Creek, along which on either side is a narrow belt of timber, has formed the lowest depression of a picturesque valley, bordered by bluffs on either side, from the summits of which extend the plains of Kansas, a vast prairie, drained by numerous rivers and small creeks. The two forks of McDowell Creek unite at this point, and it is near by where is situated the site of the old Indian town, now to be described. The flint deposits which have been mentioned by Mr. Elliott, are in place along the bluffs, and are easy of access, within a mile or two from the central portion of the village site. McDowell Creek flows into the Kansas, from the south, and at the head of its two short branches, a long stretch of high rolling prairie forms the natural divide between the waters of the Kansas and of the Arkansas rivers. To follow this divide southwardly about one hundred miles, a locality would be reached not far north of the Great Bend of the Arkansas, and the entire distance was a treeless plain.

To quarry the flint of the locality at Briggs, all that is necessary is to fracture the outcropping stratum or displace the nodules from the limestone formation. Each process was customary by the Indian occupants of the Elliott Village Site.

All that has been said of the fertility of soil and the abundance of wild fruits and nuts, applies particularly to the McDowell Creek Valley, and the description need not be repeated here.

After a careful study of the chipped implements which Mr. Elliott sent to St. Paul from this village site, I was firmly of the opinion that

they were made by Indians at about the period of time when the Spanish discoveries in the western hemisphere were accomplished. Calcareous tufa, and the disintegration of fossiliferous elements from the chert implements, indicated a considerable age, and the forms and sizes used, were a striking indication of the warlike character of a band of savages who followed the chase for subsistence.

On November 20, 1896, the locality was explored by Mr. Elliott, Mr. W. J. Griffing and myself. Writing at that time of the results of our exploration, it was stated:

The second terrace above the creek, on the north side, was found to have been, at some unknown date, the site of an extensive Indian village. Two hundred and fifty chipped stone implements of different kinds,

sizes, and varieties were picked up along the terrace, and placed in convenient piles. Flint blocks, rejects, finished and half-finished points and knives, broken implements, and a remarkable quantity of spalls, large and small, were scattered everywhere along the terrace. There are two cultivated fields there. Our cursory examination extended to but one of them on that side of the creek. At the point on the chart marked as the location of a workshop, we discovered about a hundred



SINGLE FLINT TOMAHAWK. †.

ELLIOTT VILLAGE SITE.

QUIVIRA. PLATE III.



CHARACTERISTIC FLINT SPECIMENS. ELLIOTT VILLAGE SITE.

implements, and the spalls could be numbered by the thousand. Up to a late hour in the day no article of iron, copper, pottery, or lead was found. Finally two small potshards were picked up down nearer the creek, but away from the central locality of the village site. Crossing the creek on a fallen tree, with some difficulty, we were directed by Mr. Elliott to another spot where village debris was found, but in limited quantities. Returning to our team, the several piles of stone implements were gathered up and more were added. Wherever we searched, the surface was littered with flint spalls and chipped implements. Visiting (some of) the bluffs of the neighborhood, no mounds were found, and no graves or places of burial are distinguishable. Mr. Briggs pointed out the limits to which extended the scattered stone implements and debris, covering nearly one mile in length. The width of the village site is hardly ascertainable, for the terrace has been under a state of cultivation for so long a period, and the stone relics seem to be scattered so promiscuously from the flood plain to the base of the bluffs that it is difficult to determine the outward limits. The site is large enough to accommodate about one thousand ordinary sized lodges. Just how many there were will probably never be known.

Subsequently on Monday, March 22, 1897, in the company of Mr. Elliott, I undertook a careful survey of the village site described.

We found convenient and comfortable quarters at the farm house of Claus Garenson, near by, but on Tuesday morning we were delayed by a snow storm and had ample opportunity to familiarize ourselves with the simplicities of a happy Swedish family, led by the youngest, Emanuel, in religious devotions, three times each day. There were Claus the father, Eljona the mother, John, Ernest, Otto, Anna, Gerda and younger children, which, if four little graves on the bluff near by were numbered, would make a family of seventeen persons.

To John, Ernest and Otto Garenson is credited the discovery of a greater number of chipped implements, at the Elliott Village Site, than of all others combined which have been found there, and many of the specimens recovered by them are subjects of illustration herein, a portion of which are shown in Plate III.

On Thursday, March 25th, a careful survey and exploration of the Elliott site was proceeded with.

We erected a rude stone monument at the summit of the bluff to mark the progress of our exploration; discovered six small round

mounds, as noted on the chart, and explored the entire locality on the north side of McDowell Creek.

One of the small mounds was excavated and a piece of chipped flint is all that it contained. The material of which it was constructed was found to be of black, rich soil, and its size was twenty-five feet in diameter and eighteen inches in height, and it contained no rock or limestones. After completing necessary surveys for a chart and exploring the approximate limits of the old village site, we discovered upwards of one hundred chipped flint implements of various forms, and deposited a copper plate to mark the date and place.



BROKEN "MILLSTONES." †.

John, Otto and Ernest Garenson, who are tenants of the Briggs farm, upon which is situated the central portion of the village site, have, from time to time, broken up about fifteen large flat stones, more or less hollowed out, similar to a mortar, which they call "millstones," from the appearance that they were probably used to grind corn, acorns, roots, or other products.

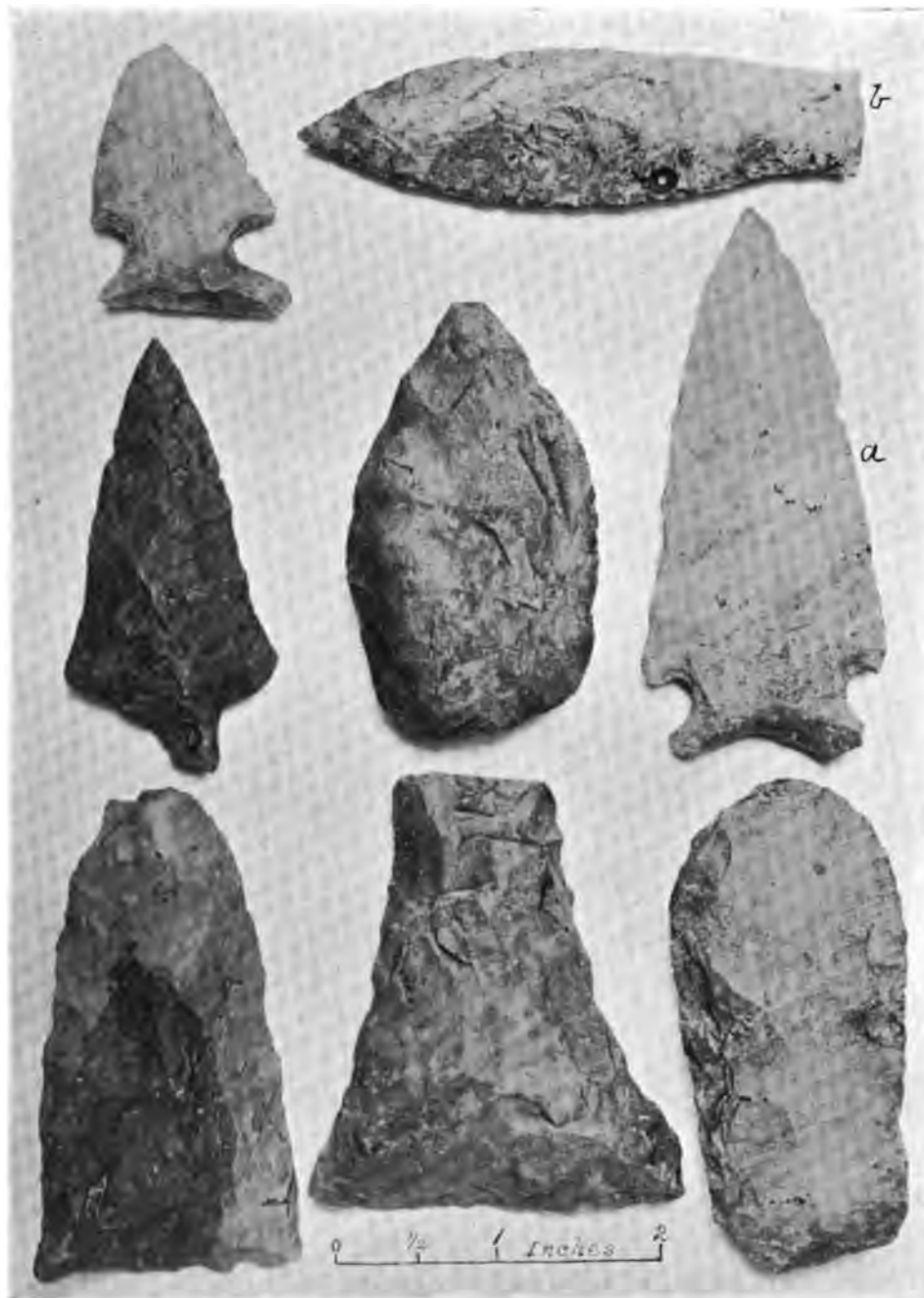
The accompanying illustration is intended to show the character and form of the mortars used, which appear to have been made of Sioux quartzite, collected from the drift area, exposed on the south

side of the Kansas River, in the northern portion of Wabaunsee County. The young men named gave as a reason for the destruction of these valuable relics, that they interfered with the cultivation of the fields, and I have been unable to secure more than a portion of the broken pieces.

After most diligent search, only three small potshards have been found at this site. The Indians who established and occupied this village made or used very few if any earthen vessels.

The bluish-gray chert, so abundant in the immediate neighborhood, was extensively used by the people of this ancient village in the manufacture of their arrow points, spears, knives, celts and tomahawks. The implements made from flint or other material not common to that locality, are quite rare, a fact that is important as confirming a belief that this village site was a permanent rendezvous; to which the band would return from occasional hunting expeditions, to resupply the diminished number of their flint weapons. Indeed it may be safely conjectured that the village was for a very considerable length of time quite permanent in its character, sufficiently so that its name and fame must have been known far and wide among the hunter nations of the western plains. It cannot be presumed that the six small mounds discovered constitute the only places of interment resorted to for the burial of the dead, and it is probable that numerous remains were interred near by, but in what manner has not been, and probably can not be, ascertained. During the long period of time since Mr. John Briggs, in 1855, made his permanent home upon the tract of land covered by this village site, no prehistoric remains of the dead have been disinterred or discovered in the neighborhood.

For many years the flint implements have been from time to time selected and carried away by collectors and others, until at this time it is impossible to correctly ascertain or estimate the number discovered, although it is known that thousands of broken, rejected and perfected chipped flints of the various sizes and kinds have been taken from this village site, the greater portion of which have been subjected to careful inspection and comparison by Mr. Elliott and myself. The tillers



CHIPPED IMPLEMENTS FROM McDOWELL CREEK.

a. SPEAR HEAD FROM MCARTHUR VILLAGE SITE.

b. FOSSILIFEROUS FLINT SPEAR HEAD.

ALL OF THE SPECIMENS, EXCEPT a, ARE FROM THE ELLIOTT VILLAGE SITE.

of the soil still continue to secure additional quantities while cultivating the fields.

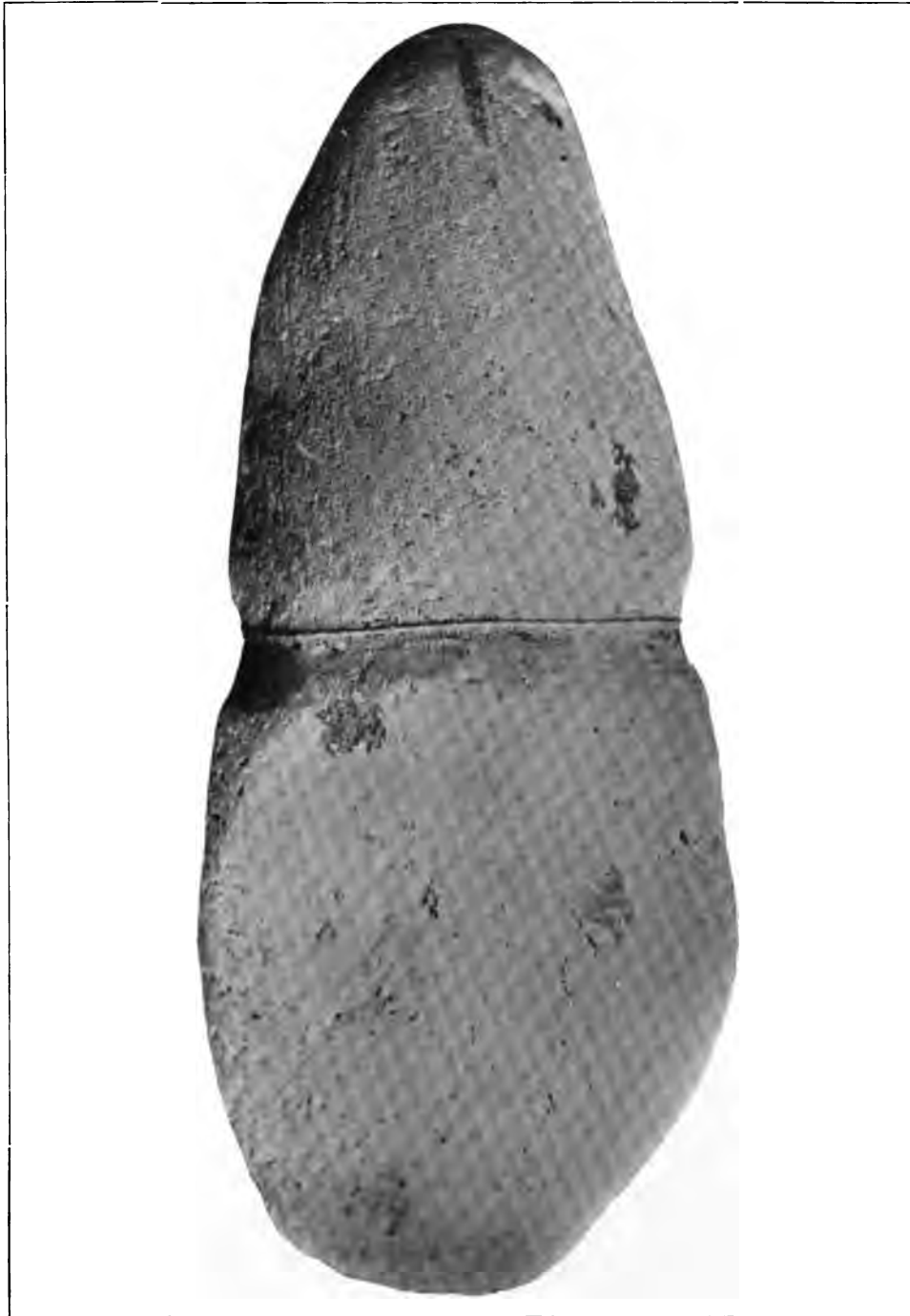
Evidences of fire, such as hearthstones or ash heaps, are uncommon, and raised lodge-sites or excavated circles are entirely absent; however, in a consideration of the absence of such indications it must be remembered that the ground has been cultivated for nearly half a century.

A limestone water-trough was discovered by Mr. Briggs many years ago, and it was broken and used in the construction of the stone fence inclosing the premises. A search for the pieces along the wall proved unsuccessful, and any statement concerning its identity or origin is necessarily precluded.

Several bone implements, badly decomposed and broken, into the ends of which there had undoubtedly been inserted handles of wood, were found. The polished extremity of the bone indicated that they had been used to extract marrow from the bones of the larger animals. This process was well known to and practiced by the Indians west of the Mississippi, as late as 1860, which I personally know to have then been a custom not unusual among the Indian hunters of the Sioux and Ojibway races.

The vast upland prairies east, west and south of the Elliott Village Site have been, within historic times, an extensive buffalo range, a fact which can be substantiated by several citizens of Kansas, now residents of Wabaunsee and other counties, where they have lived since the earliest settlements. North from the site, the McDowell Creek Valley extends to the Kansas River.

There is one other fact which Mr. Elliott has referred to; the existence of a beautifully formed, cone-shaped height of land overlooking this locality, situated between the forks of the creek, from the summit of which an extensive view of the surrounding country in every direction can be obtained, and for signaling, discovering the approach of buffalo herds, or the advance of enemies, the Indians in early times undoubtedly resorted to this sightly *Hauteur de Terre* for the accomplishment of their savage designs, and it may have influenced them in the selection of the site of their village at the forks of the creek.



GROOVED LIMESTONE AXE. 1. ELLIOTT VILLAGE SITE.

This implement is the only one of its kind known to have been found at the village site at Briggs. It is of soft argillaceous limestone, wholly unsuited for any ordinary purpose for which an axe could be intended, unless, possibly, for a weapon of war. The smaller extremity is rounded and the broader end scraped to an edge, as shown by the distinguishable markings made by a sharp implement which was used also in furrowing the groove.

Having determined the significance of certain ascertained facts, relating particularly to the habitat and implements of a race of wild and barbarous men who followed the chase for food and raiment, some conclusions are admissible here concerning the customs and habits at such an encampment as was established and maintained at the time the Elliott Village Site was occupied by Indians previous to the introduction of fire-arms and the appliances then usually customary among civilized people.

The male portion of the community who were grown to manhood were athletic in their physical perfections, uncouth in their daily habits, nearly black by nature and from long exposure, were avaricious and suspicious, cruel, heartless and bloodthirsty, dressed in skins and furs or in such fabrics as were made from a scanty supply of flax or other material, armed themselves with bows and arrows, flint knives and tomahawks, and made numerous spears from the native supply of chert and wood united by the use of sinew, which were undoubtedly decorated with feathers and paint.

As Nature's children turned loose upon the plains of Kansas, with nothing whatsoever except their two hands and a savage intellect, urged on by necessities engendered by their hardships and by exposure, with one stone they chipped another to a fractured edge, sallied forth, lived and prospered. The flint deposits, herds of buffalo, game and fish, all abundant in the region about the Kansas and Smoky Hill rivers and McDowell, Mill, Humboldt and many other creeks, afforded an abundant supply of savage comforts and subsistence equaling any of which they then had any knowledge.

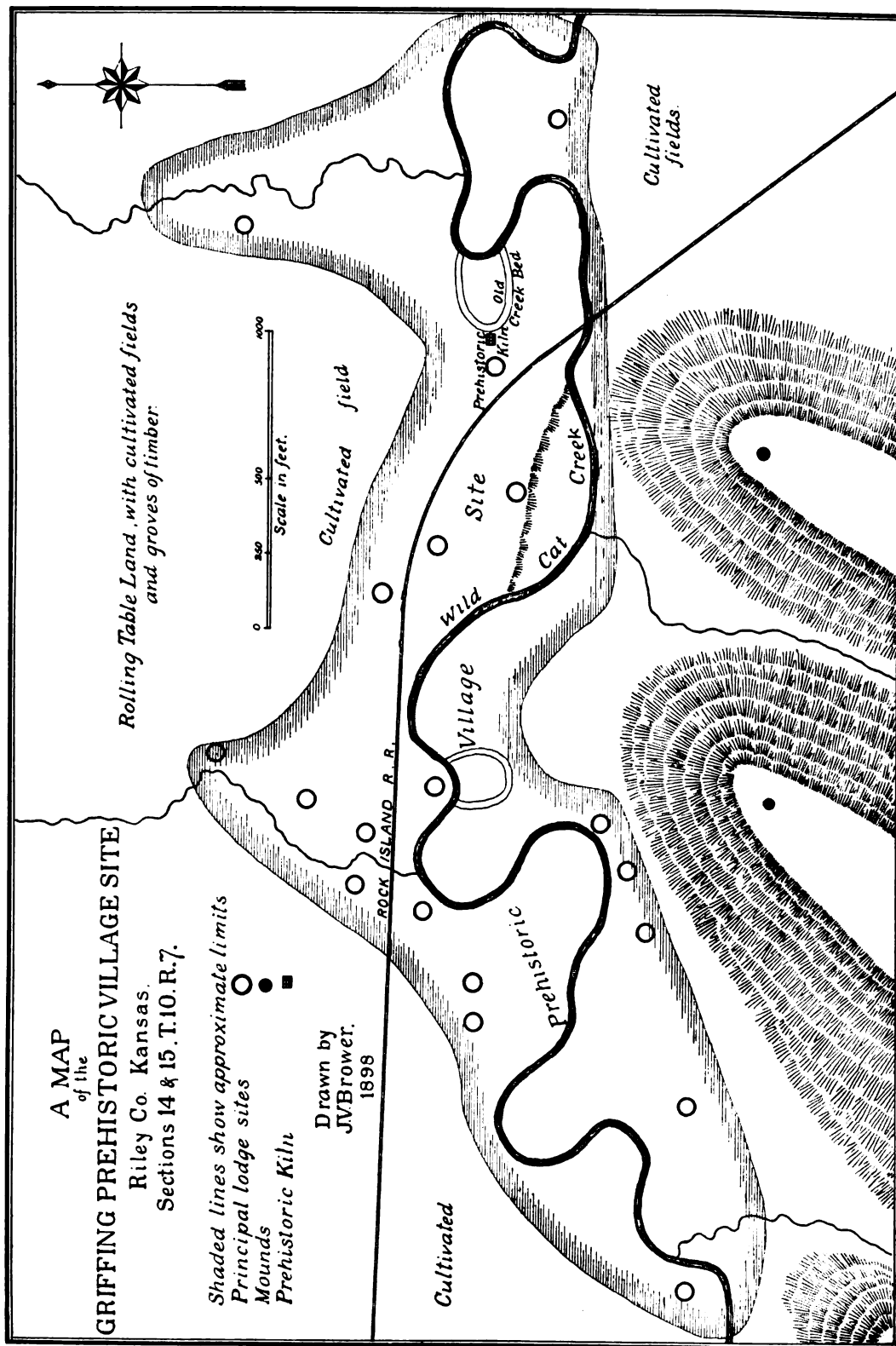
Their women were burdened with the menial labors of the town, and were the wives, slaves and servants of those to whom they acknowledged an allegiance. They bore the children, tanned the skins, carried the burdens, built the lodges, cultivated the corn, dried the meat, gathered the fuel and brought the water. Of the intricacies of the ways and means for cooking the food, but little was then necessarily known, for not a single cooking vessel or remnants equaling one, have been found, after diligent search, anywhere in the neighborhood of the extensive village site on the Briggs farm. The almost entire absence

of stone axes, leads the way to a conclusion that buffalo chips were gathered for the supply of fuel and that fire came from the fracture of flints.

In the absence of stone or earthen water vessels what conclusion may be arrived at other than that intestinal receptacles were of common use? If no cooking utensils were used, and there were none in any considerable numbers, then it is fairly presumable that half-roasted or even raw meat was a daily but morbid luxury. As no dishes were then available to those people of the plains, historic incidents point the way to an understanding of the custom usual among the Indians in cutting away long strips of flesh, which, when held by one end in the left hand, the teeth, and a knife in the right hand, were used to detach a portion for mastication, which, followed by repeated and similar fashionable acts at the savage repast, soon gorged the recipient with a meal of meat, cooked or uncooked according to the taste, or the conveniences at the time available, the whole being washed down with the contents of an intestine filled with blood.

All these customs, ways and habits were of a historic knowledge, imparted to those early Spanish and French explorers who preceded us in the West; indeed, within our own times, some of the customs of the native Indian have been no less abominable than those described as prevailing among his ancestry, and many of them I have myself personally witnessed.

All the facts gathered concerning the character of the horde of wild people who established themselves on McDowell Creek, concentrate the mind, necessarily, into a channel of thought, whereby we must, now and here viewing the evidences which they left to mark the place of their encampment, know of them only as a band of uncouth and terrific savages equaling any tribe in heathen customs and probably in numbers, who then infested the Western Plains, within the limits of a single village, or, in fact, of any Indians who ever existed on the American Continent at any one encampment. Many of their flint implements are subjects of further discussion and illustration on other pages of this *Memoir*.



GRIFFING VILLAGE SITE.

§ 3. THE GRIFFING VILLAGE SITE.

A PREHISTORIC OCCUPANCY OF WILD CAT CREEK, RILEY COUNTY, KANSAS, AND A DESCRIPTION OF THE APPARENT INDUSTRIAL HABITS OF ITS PEOPLE.

Probably at a much earlier and likewise a later date, than at the Elliott Village Site ten miles due south, a band of Indians inhabited a sightly and convenient village on Wild Cat Creek, not more than two miles to the northward from the Kansas River in Riley County.

The central and principal portion of the village was upon Sec. 14, T. 10, R. 7 E.

This old village site has been very thoroughly explored by Mr. W. J. Griffing, after whom it is named, and I have relied confidently upon him for a more complete understanding of its peculiarities, than my cursory examinations on two different occasions would readily permit. With Mr. Griffing and Mr. Elliott I found it convenient to explore the locality on the 17th of March, 1897. The village was on both sides of the creek, immediately to the northward from two sightly bluffs, along the bases of which is a fringe of hardwood timber.

The fertility of the soil, general physical characteristics of the valley, quality, kind and extent of the timber, and the convenient location, are all approximately similar to the McDowell Creek Valley.

The peculiarity of the features of the village site are entirely different from those which characterize the Elliott site, and that which remains is sufficient to indicate clearly that the people who established themselves on the Wild Cat Creek were not of the same tribe or nation of men who occupied the village on the McDowell Creek. They made and used earthen vessels quite extensively, maintained lodges at least partially covered with earth, low elevations of which still mark the principal points where they were constructed, and their chipped flint implements are quite different in form from those which have been described as having been made at the Elliott village, only ten miles to the southward, but on the opposite side of the principal river of the region

explored. Writing from Manhattan, Mr. Griffing has described many of the peculiarities mentioned, as follows:

The evidence is quite strong that this section was at one time the home of a numerous race of people skilled in the art of making pottery and in manufacturing arrow-points, spear-points, knives, scrapers, etc., of



FOUR EDGED FLINT KNIFE, BIRD BONE AND SHELL BEADS, ARROW-POINTS AND SHELL ORNAMENT, FROM THE GRIFFING COLLECTION, NORTH SIDE OF THE KANSAS RIVER. (Full Size).

flint; stone axes and hammers of flint and granite, pipes of red pipestone, and numerous implements and ornaments of bone and shell.

The village sites are all located on bottom land near the margin of the creeks and rivers, obviously for the purpose of better securing food

QUIVIRA. PLATE VI.



BONE FISH-HOOK, FLINT POINTS, CHIPPED IMPLEMENTS AND GROOVED SAND-
STONE, FROM THE GRIFFING COLLECTION, NORTH SIDE OF THE KANSAS
RIVER.

and water; game and fish being abundant, and the rich soil of the low lands furnishing the best of ground for farming purposes.

The relics commonly found on these village sites are knives, arrow and spear-heads, scrapers, whetstones, rubbing stones, axes, flint awls, fragments of pipestone, and an occasional pipe bowl, fragments of pottery, etc.

The arrow-points are of three different types: First—Plain triangular shape without notches. Second—Similar to first, with one, sometimes two, notches on the side near the base. Third—Are barbed, the barbs projecting backward, often having a serrated edge; *i. e.* war arrow-points.

The scrapers are of flint, flat or curved on one side and rounding on the other.

The knives are of flint, of such a shape as to give four cutting edges.

The whetstones are of brown sandstone, generally grooved; were probably used to sharpen bone instruments.

Flint awls are from one and one-half to four inches in length, with an enlargement at the base.

Only two or three whole specimens of pottery ware have been found, though fragments are common. At least two places have been found where it was manufactured.

The rims of the pots were often ornamented. Sometimes ears or handles were attached to the rim, much like the handle of a jug. All were of a rounding kettle shape, with a capacity of from less than a pint to a few gallons.

The mounds are, with hardly an exception, located on the tops of the bluffs overlooking the streams, and were all used for burial purposes. They are composed usually of stone and common alluvial soil, the stones varying in size from pebbles to rocks weighing one hundred pounds or more, and have been transported from neighboring ledges of limestone rock, found on the brows of nearly all the bluffs here.

No earthworks of any other description have yet been found, except slight elevations on the village sites, which are only the debris of former dwellings of some kind.

I have opened or assisted in opening some thirty or more of these mounds. The majority are about one to one and one-half feet in height and twenty-five feet in diameter at the base, and contain little else than fragments of burned human bones. The larger ones, however, ranging in height from one and one-half to four feet and twenty-five to thirty-five feet or more in diameter, besides the ever-present burned bones, teeth, etc., also yield other more interesting relics. The following is a list of some of them: Barbed or war arrow-points, spear-points, bone and flint awls, beads of bird bone (often ornamented with grooves), and also of shell and white stone, fragments of bone daggers and other bone implements and ornaments, and one bone fish-hook, made from the side of a bone, without a barb; a few thin pieces of copper and fragments of pottery similar to that found on the village sites.

Nearly all the largest mounds show that more than one burial has taken place, and that cremation was commonly practiced.

In one, however, in section 19, near the mouth of Cedar Creek, Pottawatomie County, an entire skeleton was found in a sitting posture, much decayed. It was an intrusive burial. Other bones and relics found were in every respect similar to those found in other mounds.

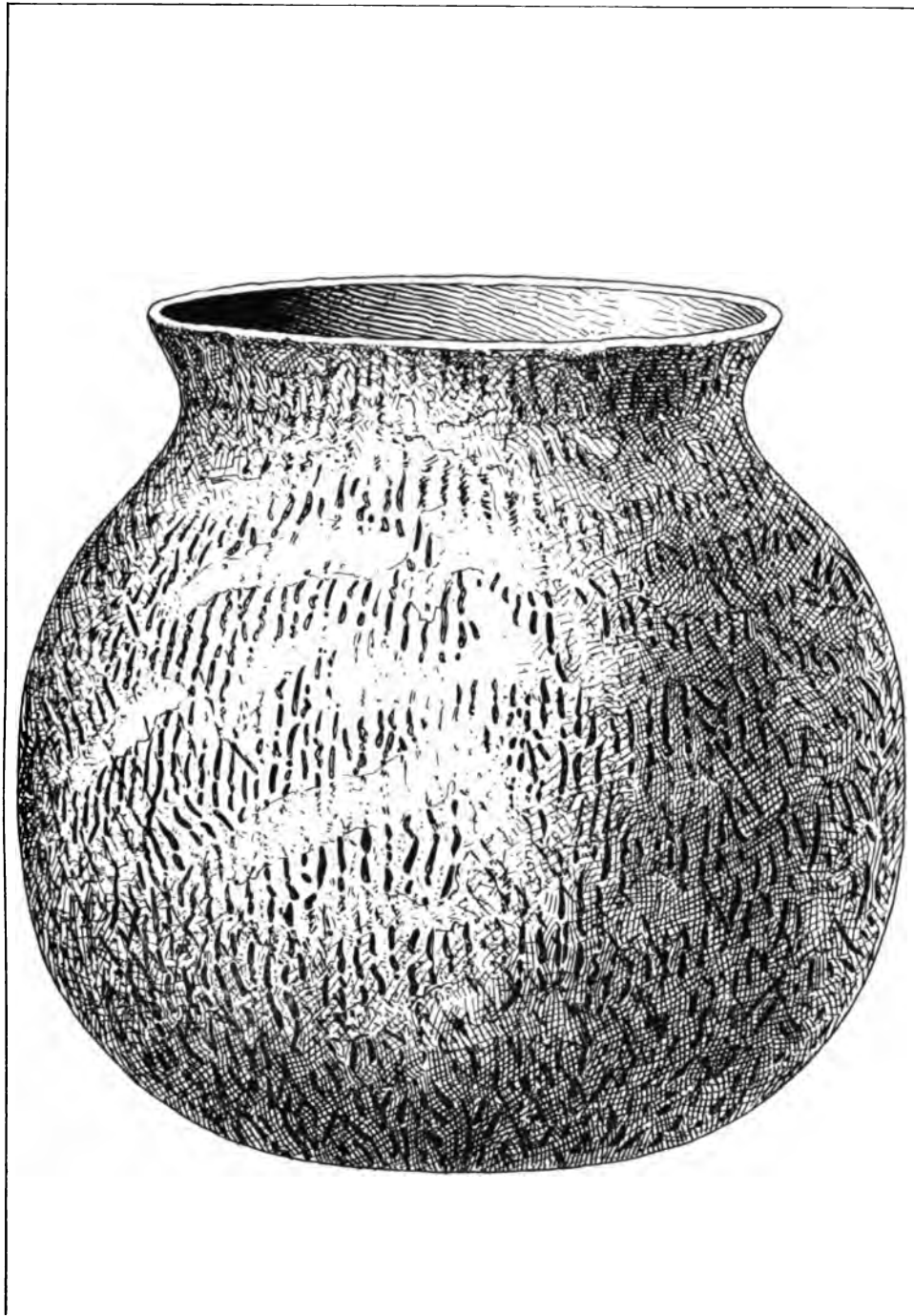
Another interesting mound opened is in section 34, near the mouth of Carnahan Creek, Pottawatomie County. This was similar to the others in size, and contained burned bones, arrow-points, etc., and also some old-fashioned glass beads, blue and white in color, and a short coil of brass wire, showing contact with the whites.

These mounds and village sites are to be found up and down the Kansas and Blue rivers and their tributaries for long distances. There are undoubtedly many mounds that have never been opened.

The Kaw or Kansas Indians were located in a village near the junction of the Blue and Kansas on the first advent of the whites, at the beginning of this century. The village, of about 120 lodges built of poles covered with earth, is accurately described by Dr. Thomas Say, the eminent naturalist, a member of Major Long's exploring party sent out in 1819-20. The Indians were in possession of flint-lock guns, knives, axes, and other iron utensils, obtained from the whites. Their dead were buried in unmarked graves on the bottom land near the villages.

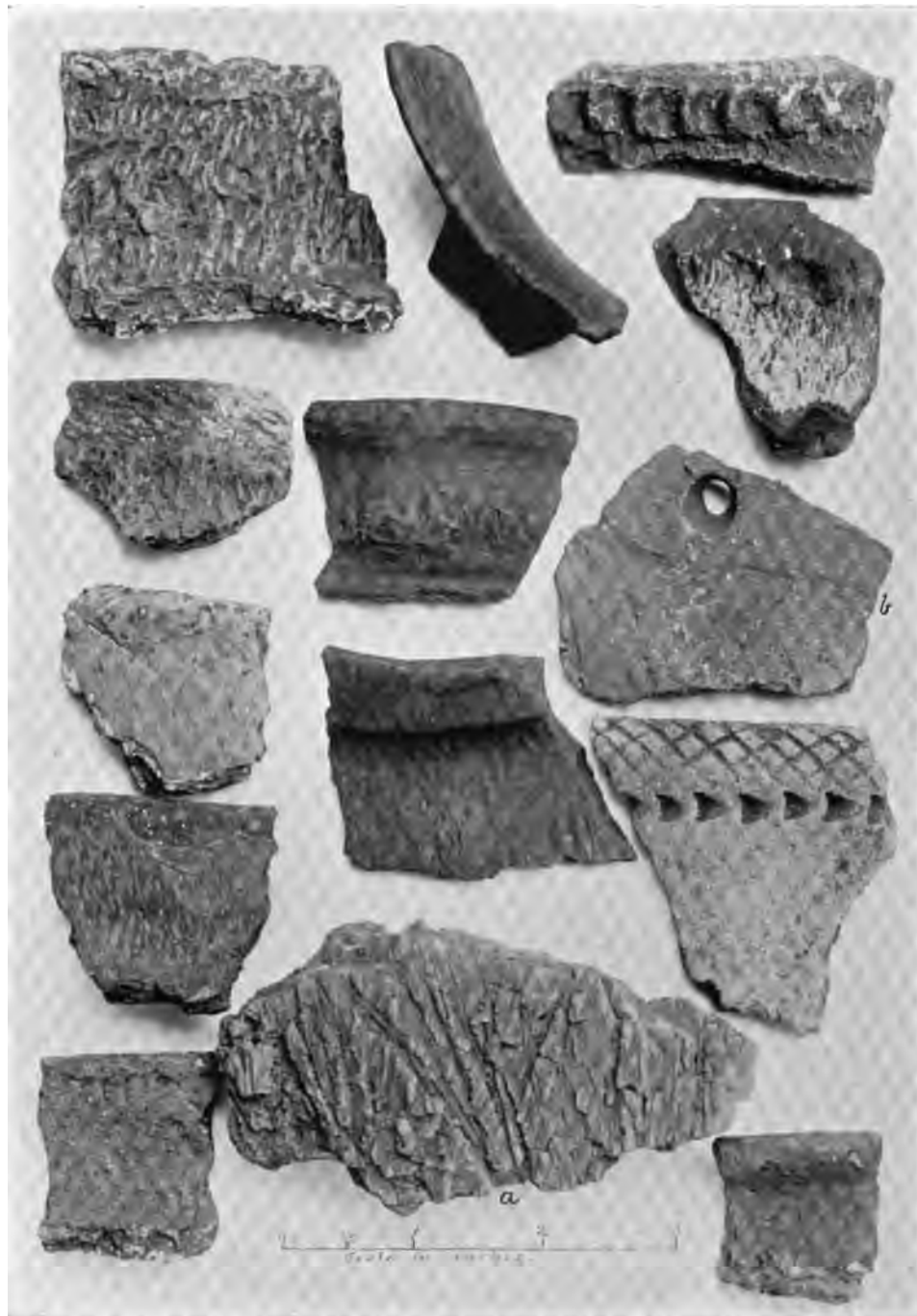
The slight elevations on this village site, mentioned by Mr. Griffing, are lodge-sites where the principal habitations of its people were located. They were undoubtedly quite commodious places of abode, constructed in part of earth thrown up around a central frame of native timbers of small dimension, which were probably covered with reeds or straw, a frail tenement against which the earthen covering rested around the base. If an opportunity were now offered to enter one of those ancient lodges, those familiar with the rude customs of a wild band of Indians, might expect to witness a very primitive mode of existence, then prevalent. Robes of tanned skins, bows and arrows, earthen vessels, flint knives, spears and chipped implements, made of the native chert, grooved axes of quartzite or diorite and in the center of the lodge a place for fire, around which the occupants could assemble during inclement weather, sitting on mats or robes spread on the ground.

On Saturday, April 3, a prehistoric kiln was excavated and explored. The narrow walls of a small oven made of clay plastered against a foundation of straw and reeds, were obliterated by the weight of an



EARTHEN VESSEL. 1.

Reproduced with the greatest care from the shards of one-third of a vessel excavated at a prehistoric kiln near the bank of Wild Cat Creek, at the Griffing Village Site, Riley County, Kansas.



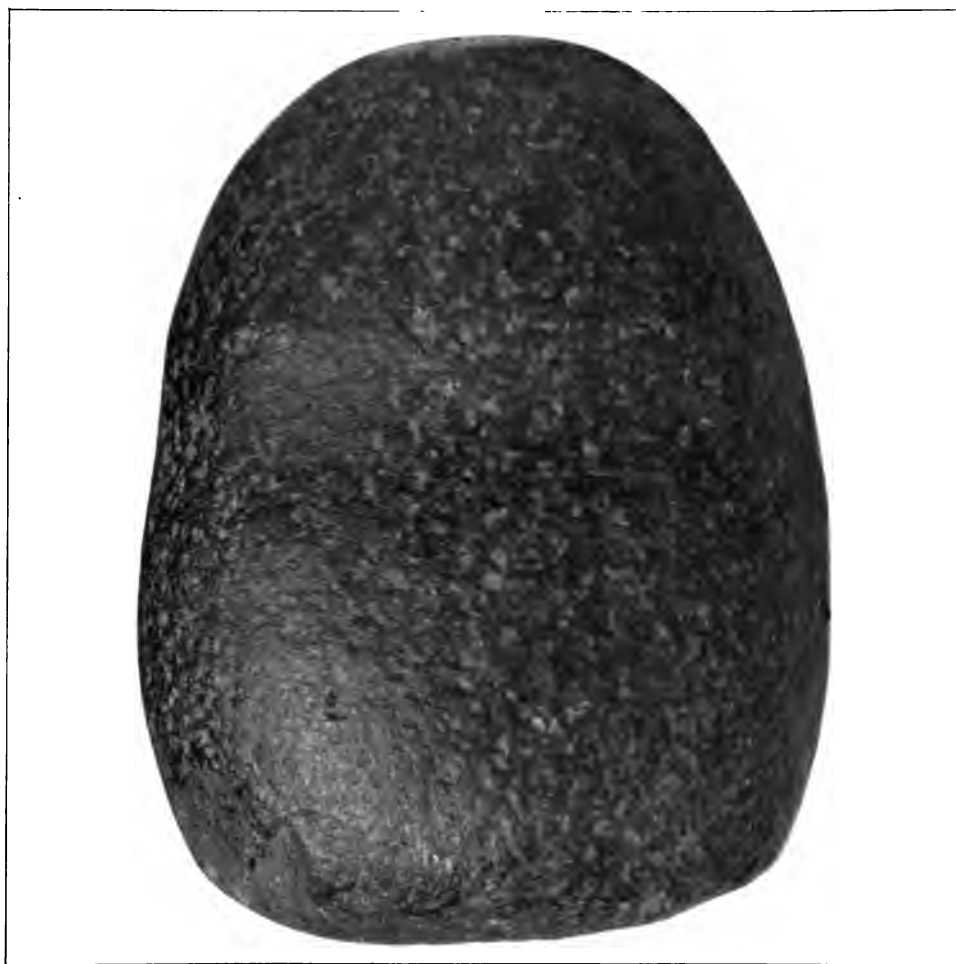
POTSHARDS FROM VILLAGE SITES NEAR THE KANSAS RIVER.

a. PIECE OF THE CLAY WALL OF A KILN.

b. PERFORATED SHARD.

Other characteristic specimens illustrated are Rim Shards.

accumulation of debris, and many pieces of burned clay were scattered over the surface of the plowed ground. From what appeared to be the floor of the kiln we recovered several large potshards, one piece being about the third part of a whole earthen vessel, which has been very carefully etched to the form of the original and reduced to one-fourth of its full size as shown in Plate VII. A piece of the clay wall of the kiln is illustrated in Plate VIII.



GROOVED DIORITE HAMMER.

From Riley County, Kansas.

The people who occupied this village site were undoubtedly expert hunters, fishermen and, to some extent, cultivators of the soil.

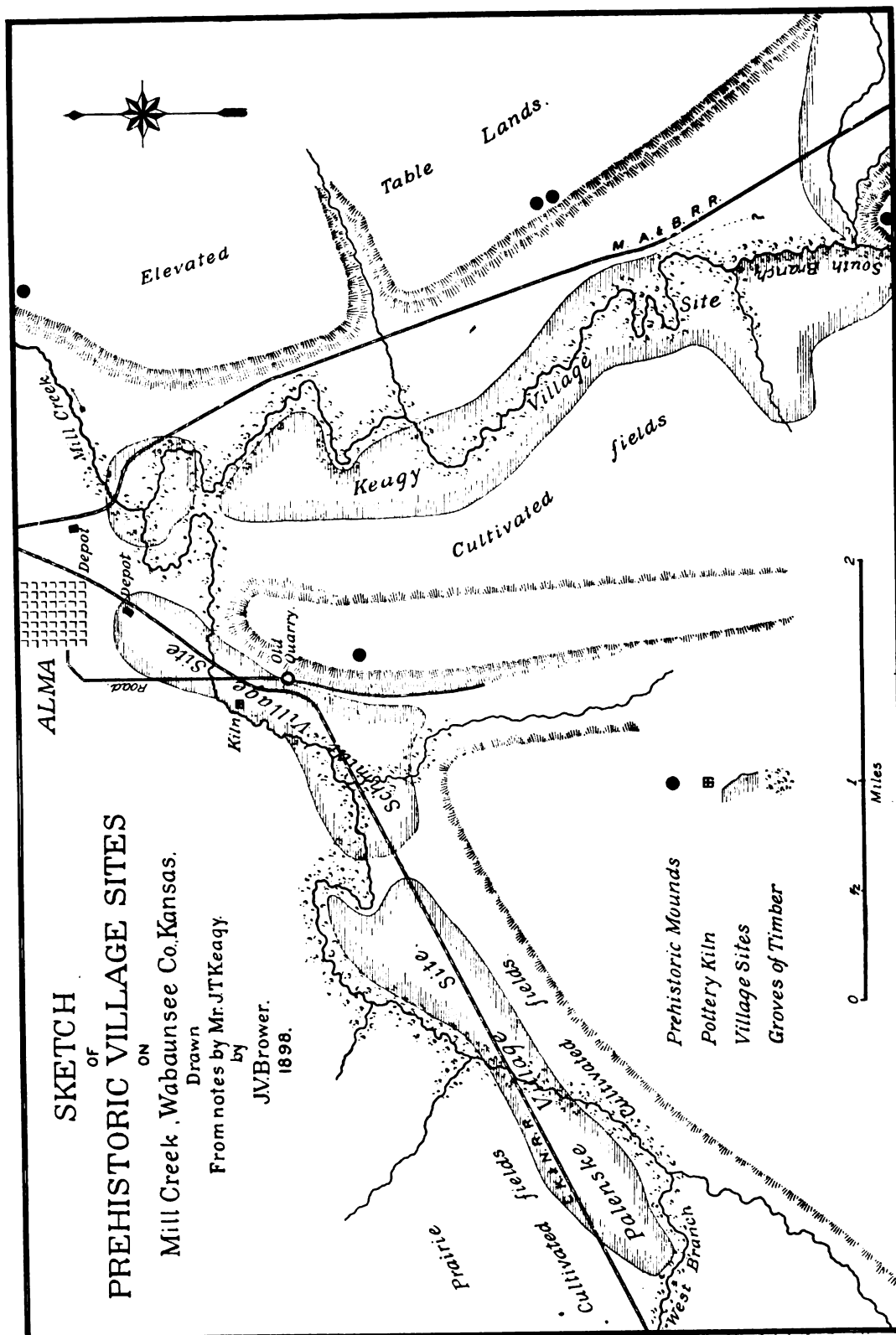
The so-called mounds of the locality are not grouped, but are scattered singly in different places on various bluffs. They are similar to many other mounds along the Kansas River and its branches, little else than burial places rounded over with rock as a protection against despoilation. The whole, having been covered with black soil which has become firmly imbedded in the rock protection, a mound-like artificial earthwork was thereby constructed over those places of interment which have withstood the ravages of time. In comparison with the tumuli of the mound-builders in Minnesota and Wisconsin, they are quite dissimilar, and no effigy earthworks appear to have been constructed, a fact which leads to the reasonable presumption that the builders were of a different linguistic stock, in no way related to the effigy-builders along the upper waters of the Mississippi River.

Catlinite pipes, and pieces of the material from which they were made, have been discovered in Riley County, showing beyond a doubt that the Indians who occupied the village sites along the Kansas River, were in contact, by traffic or otherwise, with those tribes to the northward who had access to the pipestone quarries in the southwestern portion of Minnesota.

The calcined human bones found by Mr. Griffing do not necessarily prove that cremation was usual, since it is a fact that sacrificial offerings were customary to some extent, in 1541, as was shown when two Indians were offered at the burial of Hernando de Soto on the west bank of the Mississippi.



ORNAMENT OF SIOUX QUARTZITE.
From a Sandbar in the Kansas River.



VILLAGE SITES ON MILL CREEK.

§ 4. KEAGY-SCHMIDT-PALENSKE SITES.

A GROUP OF PREHISTORIC VILLAGES ON MILL CREEK, WABAUNSEE COUNTY, KANSAS, DISCOVERED, EXPLORED AND DESCRIBED. DETAILED STATEMENT OF THE PECULIARITIES OF THE CHIPPED FLINT IMPLEMENTS OF THE LOCALITY, ITS MOUNDS AND THE ALTERNATED OCCUPANCY BY DIFFERING PEOPLE OF THE EARLIEST TRIBES OF INDIANS.

On Wednesday, April 7, 1897, I undertook the exploration of a portion of the valley of Mill Creek at Alma, in Wabaunsee County, Kansas. Rain retarded all efforts toward exploration, and I was not fortunate enough to meet any individual who understood the question of the prehistoric occupancy of the valley mentioned.

Mr. Frank Schmidt, an intelligent young German, described a place not far from Alma, where he had found an arrow-point of flint. On the morning of the 8th, in the mud and rain, we drove to the place he had mentioned, which was two miles up the West Branch. We crossed the creek on an overflowed stone dam and drove into a cornfield and to the cabin where Mr. Schmidt was born. Following a low ridge in the valley, bordering an old stream-bed, which was on the northern side of the field, I found on the muddy surface a flint spear-head, made of the same quality of blue chert as those similar implements which had been found at the Elliott site in Geary County, sixteen miles to the westward. Continuing along the ridge for some distance I discovered a considerable quantity of chert spalls, many perfect implements, a few potshards and the site of a prehistoric workshop. Rain and mud impeded the further examination of the field and we drove to Alma with ample evidences that Mr. Schmidt was born at the site of an old Indian village, and it was that circumstance which determined the name by which it is to be known and described.

At this time I was unconsciously fortunate enough to meet a gentleman at the hotel at Alma, Mr. J. T. Keagy, whose attention I

directed toward an examination of the interesting evidences of the prehistoric occupancy of the locality visited, near where he resides.

The circumstance produced remarkably interesting results, as will be shown.

Retiring from any further examinations near Alma, on account of the spring freshets, and requesting that a further exploration be made and that I might be apprised of the results, I proceeded to the valley of the Vermillion, in Pottawatomie County.

It was soon after this time when Mr. Keagy and his son, ably, interestedly and successfully took up the work of exploration at Alma, and they have kindly consented that the results of their labors may be incorporated herein, as a part of this *Memoir*, and to them is awarded the full credit therefor.

My acknowledgments are also extended for a very complete assortment of the flint implements and other archæologic material, discovered during their explorations, and sent to me at St. Paul.

Their explorations resulted in the discovery of the Keagy Village Site, the Palenske Village Site, and a more closely defined outline of the Schmidt site; and also the sites of smaller outlying Indian settlements above and below the sites shown on the sketch map.

Several mounds were discovered and explored, the site of a prehistoric kiln located, and a considerable collection of flint implements of various kinds and forms has been by them gathered and catalogued at Alma, mute evidences of the valuable discoveries accomplished by these gentlemen relating to the ancient history of Kansas. They have also furnished information, sufficiently reliable, indicating the existence of the Winkler Village Site, on one of the upper branches of Mill Creek, although the site remains unexplored, at this writing.

By reference to the colored map presented herein, following the title page, it will be noticed that the earliest settlements by Indian occupants in the Mill Creek Valley were in direct line with a natural highway of the Buffalo Plains, which extend from the head branches of Mill Creek southwestwardly between the drainage basin of the Kansas and that of the Arkansas, which, in many respects, was a most desirable hunting ground. The timber along Mill Creek and the deposits of flint were also tempting facilities,

SUPPLEMENTARY ARCHÆOLOGIC EXPLORATIONS IN WABAUNSEE
COUNTY, KANSAS, SUBSEQUENT TO THE DISCOVERY OF THE
SCHMIDT VILLAGE SITE.

By J. T. KEAGY.

One of the results of the visit of Mr. J. V. Brower to the valley of Mill Creek in Wabaunsee County, Kansas, in April, 1897, was the subsequent discoveries described herewith.

About the first of June, assisted by my son, J. A. Keagy, a lad nineteen years of age, I learned of the localities where successful search could be prosecuted for securing chipped flint implements, made by a race of men who formerly occupied that portion of the valley of Mill Creek at and above the city of Alma, the county seat.

Explorations from time to time during the summer and autumn were conducted up the West Branch nine miles, up the South Branch four miles and down the main stream three miles.

The branches mentioned unite their waters in forming the main stream near the city of Alma, where our explorations commenced.

The distance traveled within the limits mentioned was over two hundred miles, and the results amply repaid us for efforts expended.

Over that portion of Mill Creek Valley covered by our explorations, within the limits of nearly every mile of distance, the flint chippings and the completed points of the ancient implement maker, indicated a certain and somewhat extended prehistoric occupancy of the entire locality examined.

The time of year, however, on account of the growing vegetation, was unfavorable for successful work, but, over the surface explored, it can be safely stated, no such abundance of chipped flint implements exists as has been described as obtainable on the Briggs farm, in Geary County, by Mr. Brower, in his book, *The Missouri River*.

Observations over a traversed distance of 150 miles, up the creek, on both sides of the stream and its branches, brought to our notice about 200 pieces of broken flint implements and 100 perfect flint points, spears, knives and other forms, to be described hereafter.

DESCRIPTION OF FLINT IMPLEMENTS FOUND.

Three ground flint celts were found, one grooved and one not grooved, on the S. E. $\frac{1}{4}$ of Sec. 20, T. 12, R. 10, and one not grooved on the N. E. $\frac{1}{4}$ of Sec. 1, same township. On the S. E. $\frac{1}{4}$ of Sec. 30, same township, we recovered one large blue flint implement, neatly finished, 8 inches long, $3\frac{1}{4}$ inches wide and two inches thick at the convex, and weighing 36 ounces. This implement, by chipping, was brought to a sharp edge entirely around its outward portions. Also at the same locality, a similar implement $8\frac{1}{2}$ inches long, 3 inches wide and $1\frac{1}{2}$ inches thick, weighing $29\frac{1}{2}$ ounces.



FIG. 1. ARROW-POINTS. 1.

From Valley of Mill Creek, near Alma, in the neighborhood of the Keagy-Schmidt-Palenske Village Sites, Wabaunsee County, Kansas.



FIG. 2. ARROW-POINTS. 1.

From Elliott Village Site, in the Valley of McDowell Creek, near Briggs, Geary County, Kansas.

The difference in the form of the arrow-points shown in the plate characterizes the difference between the sedentary people who made vessels of clay and the barbarous tribe of hunters who infested the plains.

Bands of each tribe, alternately, occupied the Mill Creek Valley, as shown by the fact that flint implements similar to those found at the Elliott site and at the Griffing site, are variously spread over the Schmidt and Palenske fields near Alma.



REMNANTS OF ANCIENT HUNTING IMPLEMENTS.

From the Collection of Mr. J. T. Keagy, at Alma, Kansas.

On the S. W. $\frac{1}{4}$ of Sec. 15, T. 12, R. 10, we found a bluish-gray flint spear-head, $5\frac{1}{4}$ inches long and $1\frac{1}{4}$ inches wide, and on the S. E. $\frac{1}{4}$ of Sec. 30, another of the same material $4\frac{1}{4}$ inches long and $1\frac{1}{2}$ inches wide; also at same place a jasper spear $4\frac{1}{4}$ inches long, $1\frac{1}{4}$ inches wide; also about a dozen spades, (?) but I question whether all are spades, several being very pointed at the smaller end and blunt at the larger extremity, thick in center line, and, if broken squarely off in the middle, the fracture would present a very strongly defined diamond outline.

Among the other perfect chipped flints found were several leaf-shaped implements, one finely finished elliptical knife and a variety of other knives, a collection of scrapers, eleven perfect arrow-points and many broken ones. We have found no grooved axes such as are described in the *Thirteenth Report of the Bureau of Ethnology*.

Two mounds were explored on the N. W. $\frac{1}{4}$ of Sec. 25, T. 12, R. 10, at the summit of a bluff. These mounds are extremely old, and we found nothing whatsoever in either of them. They are but a few yards apart and were undoubtedly constructed at about the same period of time.

Another mound upon the N. W. $\frac{1}{4}$ of Sec. 14, same township, was explored with the same result.

On the top of a bluff on the S. W. $\frac{1}{4}$ of Sec. 1, same township, another mound was excavated. In this mound we found a scraper, some Indian beads, and portions of the remains of an interment, not comparable with any similar deposit of historic times. Previous to our explorations, these mounds had remained undisturbed.

Two mounds, on the top of a bluff on the N. W. $\frac{1}{4}$ of Sec. 12, same township, were partially explored more than fifteen years ago. These we explored more completely. I had learned that ten small arrow-points had been found in these mounds, and we secured three more. It was difficult to readily notice these small points, and an upright sieve being secured, the earthen material was treated about the same as a plasterer prepares his sand for the lime, with the result that twelve beautiful and exquisitely made bird-points were secured. Therein were also found six broken points, one larger arrow-point, bird-bone beads and some eagle claws.

From this mound a part of the bird-points illustrated, were taken. (Plate IX, Fig. 1.)

In another mound, on top of the bluff upon S. W. $\frac{1}{4}$ of Sec. 36, same township, we found five good flint points and some broken ones. They are very different in form and workmanship as compared with those found in the other mounds explored.

All the mounds, except the two in section 25, were alike in construction, having bases about twenty-five feet in diameter and two feet in height. They were constructed of limestones weighing from one to fifteen pounds, covered over with loam. Fully one-half of the material is limestone rock, as described, a portion of which indicates the action of fire.

QUIVIRA. PLATE XI.



VARIOUS CHIPPED IMPLEMENTS FROM THE KEAGY COLLECTION.
a, b and *c* are identical with the same class of implements discovered at the Elliott Site.

No calcined human remains were noticed among the considerable quantities exhumed.

The two very old mounds upon section 25 were only twelve feet in diameter and were covered over with about two large wagon loads of flat limestones weighing from twenty to seventy pounds each.

The beads and bird bones mentioned above are identifiable in comparison with those illustrated in Mr. Brower's *Missouri River*, p. 167, except that in the mound on N. W. $\frac{1}{4}$ of Sec. 22, we found one purple shell bead, thicker and better preserved than the others.

The only Indians who had a government reservation in this county were the Pottawatomies. Their reservation extended from Topeka to a point one-half of a mile east of the city of Alma. They were semi-civilized, received allotments of land about thirty-five years ago, sold their holdings and moved of their own accord to a new reservation in the Indian Territory, with the exception of a small band now on a diminished reservation in Jackson County, northwest from Topeka.

During the continuance of the explorations described, at several points along Mill Creek potshards were noticed and gathered, usually made of clay, pounded stone and sand.

On the north side of section 21 we discovered a very considerable deposit of shards and burned pieces of clay, within an area of fifty feet square, evidencing the former existence of a prehistoric kiln.

Not far up the creek from this point is a low artificial elevation thirty feet in diameter and about eight inches higher than the surrounding surface. An excavation revealed the existence of numerous pieces of pottery, flint spalls and a circular bed of very compact ashes. This lodge site seems to indicate a somewhat permanent place of abode at the time it was built.

Having determined to explore the lodge site where the ashes and debris were discovered, the area was carefully determined as being thirty-five feet in diameter and not more than five inches higher than the surrounding surface. With the assistance of August H. Palenske the occupant of the S. E. $\frac{1}{4}$ of Sec. 20, T. 12, R. 10, where the site is located and after whom the same has been named, we commenced the exploration in the afternoon of November 20, 1897. The area excavated was one-sixth of the lodge site to a depth of two feet, from which was taken animal bones in a fair state of preservation, potshards, spalls, and forty pounds of various chipped flint implements and pieces of blue chert. In the lot was one broken celt, one end of a rude pestle and a half completed small axe, each of which pieces were made of selections from the drift area. The celt was of Sioux quartzite, ground to an edge, and after the upper extremity had been broken off the fracture was nicely chipped off on one side to fit the palm of the hand, while available for further use.

Continuing the exploration at a later date many potshards and flint implements were found, and one perfect pipe of red pipestone



CHIPPED IMPLEMENT. 1.

Discovered by Frank Schmidt on Mill Creek. The flint was in contact with limestone when chipped, which, disintegrating by the action of the elements, has left the chert portion of the implement intact, minus the limestone.

with a groove around the bowl. Several pieces of catlinite were also found and a considerable quantity of charcoal, ashes, animal bones in an advanced stage of decay, one human tooth and a quantity of chipped implements made of the native chert. This lodge site has been subjected to denudation in a cultivated field for twenty-seven years, but its outlines are plainly distinguishable and similar to several others in the immediate neighborhood which have not been explored. The contents of the lodge site excavated show extreme age and it is doubtful if bone implements have therein withstood the ravages of time.

In relation to certain facts concerning the present nomenclature of this locality the definitions handed down to us from the organizers of this county seem to be sufficiently reliable.

In 1871, Mr. C. B. Lines, who was the president of the Beecher Rifle Company which in 1856 settled at the village of Wabaunsee, in this county, and others appeared before the senate committee on county seats and county lines to resist a proposed change. Before this committee Mr. Lines in an address referring to the name Wabaunsee, said: "It is a beautiful one. It means the 'dawn of day.'" Others have suggested as the true meaning "Birth of Day," and "Early Dawn."

The United States government constructed a Mill for the use of the Pottawatomies a short distance above the mouth of Mill Creek, and from that circumstance the stream received its name on the official plat.

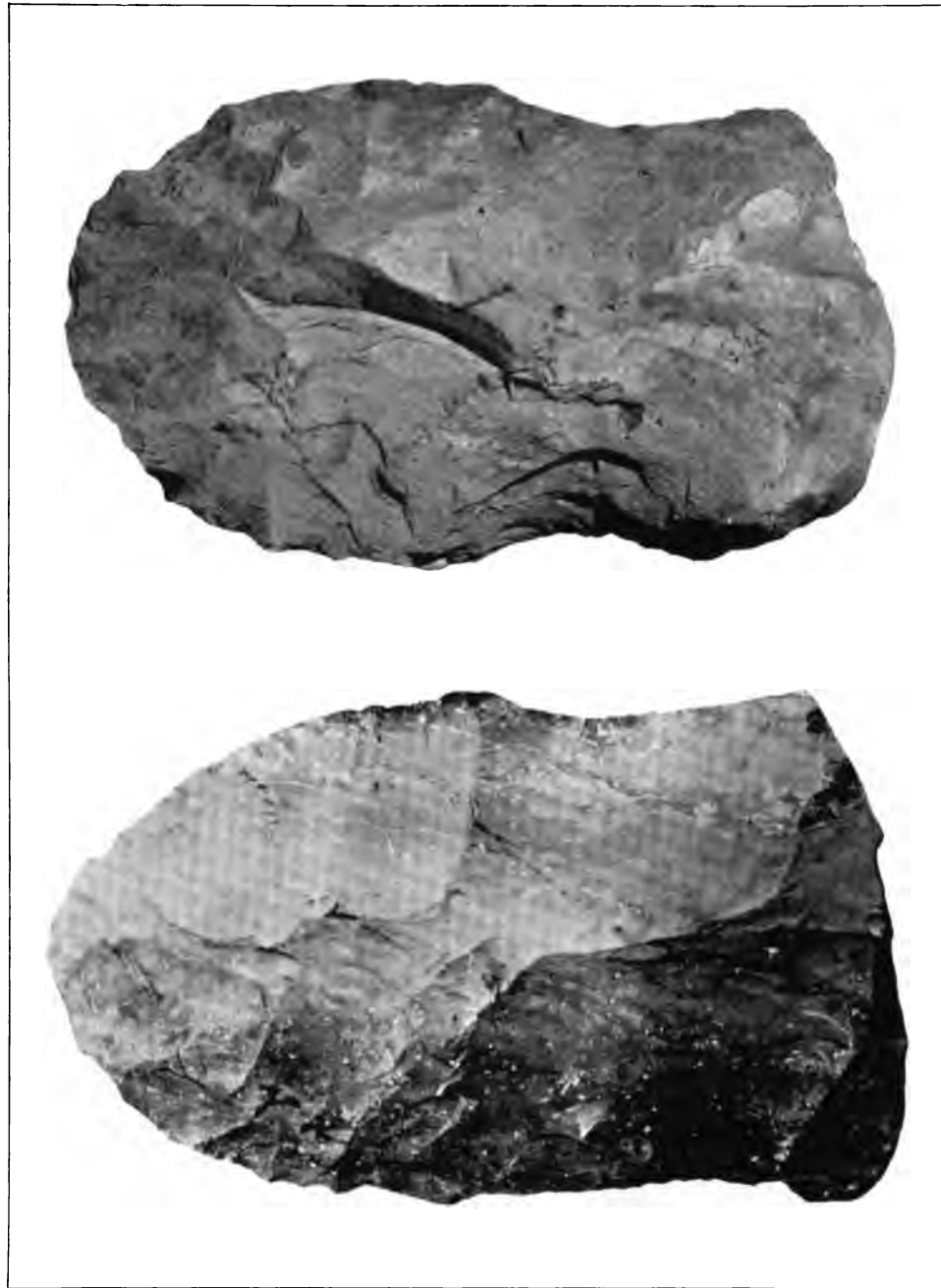
The Beecher Rifle Company was an organization from New England, each of the members of which received from Henry Ward Beecher a rifle and a bible, in the memorable times of "squatter sovereignty."

Mill Creek and its various branches and tributary streams drain a peculiarly fertile and picturesque valley, which is beautified by small groves of deciduous timber, wild fruits, and walnut.

The undulating prairie lands extend from the outward limits of the valley in all directions, and, within the memory of the oldest residents, buffalo were plentiful on the plains surrounding the valley.

Sioux quartzite and diorite appear upon the surface between Mill Creek and the Kansas River to some extent, indicating the limit of the drift area during the last glacial epoch. To some extent the drift material was used by the Indians in the manufacture of stone implements and ornaments.

Mr. Keagy has also found an occasional chipped knife or other implement, made from a flesh-colored flint, foreign in its nature to the chert deposits in place near the village sites on the upper waters of Mill Creek.



SINGLE FLINT TOMAHAWKS.
(Full Size).

From the South Side of the Kansas River.

No similar Chipped Implement has been found on the North Side of the River.



CHIPPED IMPLEMENT. †.

Found by Mr. Frederick A. Marlatt, in Riley County, Kansas.

§ 5. EARLIEST EXPLORERS.

DESCRIPTIVE REFERENCES RELATING TO THE OBSERVATIONS OF THE LATE PROFESSOR ISAAC T. GOODNOW AND OF THE LATE PROFESSOR BENJAMIN F. MUDGE ALONG THE KANSAS RIVER AND ITS TRIBUTARIES.

Miss Harriet A. Parkerson, of Manhattan, has formulated an interesting description of the explorations of the late Professor Isaac T. Goodnow, Ph. D., who became a resident of Central Kansas in 1855, and for many years a scientific observer within the limits of the area of that portion of Kansas now under consideration.

From Miss Parkerson's manuscript and from a personal interview with Mrs. Ella D. Goodnow, information has been gained which makes some references especially permissible here relating to the observations and collections of Professor Goodnow, within the territory described.

He was the founder and first president of Blue Mont College at Manhattan, which was, in 1863, merged into the State Agricultural College, said to be the largest institution of the kind in the world.

In the basement of this college is a considerable accumulation of flint implements, bone beads, pottery and other archæological material which has been gathered from time to time in the vicinity and placed in the possession of the college authorities. There is also a collection at the home of Miss Parkerson, left there at the time of the demise of Professor Goodnow.

Both of these collections have been carefully scrutinized as furnishing data and material, important to be understood in the relation they bear toward the earliest occupancy of the territory where the college now stands, but it is to be regretted that all interest in archæologic research is secondary and subservient in this seat of learning, situated as it is in the heart of a region where the agricultural interests of Kansas had their first inception in prehistoric ages, before the advent of learned men, who were yet to discover the earliest indications of industrial customs, near the college.

In Professor Goodnow's collection was left a flint spade from the headwaters of Smoky Hill River intended to be illustrated when the identical locality where it was found shall have been certainly ascertained. On the walls of the college there hangs a map, made by Mr. Griffing, which has been referred to as delineating a part of the mounds and village sites in Riley and other counties.

Mr. Frederick A. Marlatt, in charge of the college collection, furnished for illustration an interesting chipped implement which he found near a spring, three miles northwest of the college. This implement is illustrated in Plate XIV, and it was undoubtedly used for agricultural purposes.



THE LATE ISAAC T. GOODNOW, PH. D.

RESEARCHES OF PROF. B. F. MUDGE.

BY MARY E. MUDGE.

In 1873, Professor Mudge stated in a paper read before the Academy of Science that he had found few traces of Indian mounds or implements after passing fifty miles west of the Mississippi River. The object of that paper was to draw attention to the subject that others might be induced to notice and record any fact within the bounds of Kansas which would throw light on the existence of this ancient race of mound builders.

At Cow Creek, in Rice County, a short distance from the crossing of the old Santa Fé Trail, he found fragmentary remains of pottery, etc., showing that at least a temporary village formerly existed on a small area there.

In the northwestern corner of Riley County he found fragments of pottery, arrow-heads and other stone implements, with chippings of stone left where the implements were made. The area covered over twenty acres and was a pleasant locality for a small village.

But a locality which he deemed more important was on a rolling prairie in Cloud County, on the southwesterly side of the Solomon River. There evidently was a manufactory of their domestic articles, for the pottery covers from one-fourth to one-half an acre. The limits are obscure, the ground having long been covered with rank growing grass, but, rising irregularly to about two feet above the level of the adjoining prairie, it is composed mainly of the materials and debris from the old

workshops. He says: "In it we found a considerable quantity of the clay dug from the banks of an adjoining ravine, which had never been moulded; some partly moulded and sometimes mixed with straw, probably to be used in the coarsest articles. Also, fragments from what appeared to be the ovens in which the pottery had been baked. These fragments showed marks of fire, and were too clumsy and coarse to have been part of any household utensil, and were mostly in a heap in the highest and central part of the pottery. Not only is the texture similar, but the ornamental markings are like those described by Foster and others. The peculiar figures seen on the vessel (fig. 43, p. 244, *Foster*) are frequent. Also, the clearly defined marks as made by moulding the vessel on the inside of baskets. There were 'ears' on fragments of the larger vessels, as if designed for bails."

One of the most interesting relics of this ancient people secured by Professor Mudge was found near his home in Manhattan, Riley County, Kansas. It is a vessel spherical in shape, five and a half inches high and six and a half inches broad, and having a rim at the top with two ears for a bail. The material is a dark substance, with interminglings of scattered grains of silicious sand. The exterior is corrugated with the grass marks so frequently found on pottery of that age, and the rim is ornamented by a series of chevrons and the vacant triangles marked with dots. In size, shape and general appearance it resembles the vessel figured on page 248 of *Foster's Prehistoric Races*, excepting that it is ornamented on the rim as described.



THE LATE PROF. B. F. MUDGE.

Along the Kansas River and in its vicinity are numerous high bluffs, often capped apparently by artificial mounds. On November 17, 1879, Professor Mudge, in company with Dr. C. P. Blachly, commenced opening one of these mounds on the top of Blue Mont, north of Manhattan. It contained skeletons, arrow-heads, beads, etc., proofs that it had once been an ancient burial ground. On the morning of his death, November 21st, of the same week, Professor Mudge wrote of this mound, "It is more interesting from the manner in which it is built than for anything we have yet found, but we have not gone to the center of it. * * It is built first of sandy loam and then two feet of stones and dirt like those near Junction City, Geary County." He had previously examined mounds in Geary County and near Kansas City, interesting accounts of which were published in local papers at the time.

Benjamin F. Mudge was the first State Geologist of Kansas, appointed in 1864. In 1866 he was elected to the Chair of Geology in Kansas State Agricultural College at Manhattan, and later to the same in Kansas State University at Lawrence, which position he held at the time of his death. He was also Geologist to the State Board of Agriculture for several years. He was the first president of the Kansas Academy of Science and was also president at the time of his death; was Fellow of the American Association for the Advancement of Science and a member of other educational and scientific organizations in Kansas and other states. In 1874, and several years following, he was employed by Professor Marsh, of Yale College, in geological work, chiefly in collecting from the cretaceous and tertiary formations of Western Kansas, which for the first time yielded up their wonderful fossil remains, startling the scientific world by new species of toothed birds, gigantic reptiles and other extinct vertebrates.

"Of the genetic relationship between the *moluscan* fauna of the Dakota group and that of the later cretaceous groups of the West, which were formerly unknown, the discoveries of Professor Mudge have done more than that of all others to show."¹

As the pioneer geologist of Kansas, his thorough investigations, followed by later explorations, have developed results of lasting benefit to the state, especially in regard to its mineral wealth and other economic resources. He is referred to as "a sincere devotee and intelligent interpreter of nature," "a distinguished scientist and paleontologist," holding "a high rank not only in the West but throughout the country."

While at Manhattan I made especial enquiry concerning the earthen vessel taken from below the surface of the plateau near that city, in which Professor Mudge manifested much interest. The vessel surreptitiously disappeared from the possession of Mrs. Mudge and I had no opportunity to examine it. There is a considerable rise in the elevation of the surface immediately north of Manhattan, and I am of the opinion that the vessel was subjected to the effects of sedimentary deposits influenced by overflowage similar to the buried village site near the Kaw Village, where the Big Blue River overflowed the locality.

Dr. C. P. Blachly has described the manner in which an intrusive burial was found on Blue Mont, in the mound not fully explored when Prof. Mudge died. A city reservoir is now situated at the spot where the mound was constructed and no further exploration is possible.

1. Proc. U. S. Natl. Mus. (1890?), Plate V, figs. 1, 2, 3, 4.

§ 6. THE HENDERSON VILLAGE SITE.

DISCOVERY OF ANCIENT POTTERY, FLINT IMPLEMENTS AND
PLACES OF INTERMENT AT LOGAN GROVE, ON THE
SMOKY HILL RIVER.

By CAPTAIN ROBERT HENDERSON.

When I settled on the farm where I now reside in 1857, I naturally selected the most eligible site for my house, which occupies an elevation of thirty feet over the surrounding river bottom. My attention was soon called to a depression near my house which proved to be artificial and gave out arrow-points and flint chippings from time to time as it was cultivated, and finally was dug up by my son, Wm. J. Henderson, in 1886, revealing more arrow-points, flint chippings, spear-points, flint scrapers and broken pottery in great abundance, but what was most surprising was the abundance of charcoal and ashes mixed with the pottery as well as the vegetable mold in pockets which had been scooped out of the clay. I made a minute examination and came to the conclusion that out of the pockets the clay had been taken at some remote period by the Indians to make their pottery. This opinion was confirmed by Captain J. R. McClure and Captain Geo. E. Pond who examined the depression and pronounced the clay a valuable kind for pottery and brick. The pottery, while rude, must have been enduring, as shown by the fragments in my possession. One piece had an attempt at a handle similar to the form commonly used on our coffee cups, and another piece had a hole for a bail or a handle of some kind. All the shards are characteristically marked with indented lines, and there is no exception to this. Fragments picked up at different places on the farm have all the same appearance. Some are black from being on the fire and were evidently used for cooking.

Adjoining this pit near the river on land which was once heavily timbered, are found many flint chippings scattered over several acres, also whetstones of red granite and some sandstone scrapers with grooves where arrow-shafts had been drawn through, all pointing to a workshop



THE LATE WM. J. HENDERSON.

and camping ground of primitive man, and indeed from the flint scrapers or hoes it was undoubtedly a village where agriculture in a primitive way was carried on.

On the same farm is found in a ravine the same kind of flint in place from which the arrow-points are made. Some few chippings are however an exception in color and material.

These discoveries by my son stimulated him to know more of the strange people who roamed at will over the farm, lived and died and left their footprints behind them. There is a round isolated knoll on the farm about seventy feet high, giving a fine view of the surrounding country. Discovering an arrow-point on its top, he raised up a flat rock about 2 x 5 feet in size and removing two feet of dirt and gravel, he came to the remains of a full-grown person. The teeth indicated considerable age, but all were sound. With them was a stone of reddish mottled color, smooth and ornamented on the edges with short lines similar to that on the pottery. The ornament was triangular but slightly oblong, resembling somewhat a flatiron, about four inches long and three inches wide with a perforation near the middle. In the same grave were found several ornaments of bone, all carved, and which had been worn as ornaments. The leg bones of some large bird, perhaps the pelican, were well preserved and had evidently been used for signaling or perhaps imitating the call of the deer or antelope. While the bones were well preserved I deem the remains exhumed to be of great age, its location on the highest point having been covered with the large stone, thus shedding the water, convinces me in this belief.

Was this the remains of a chief, a warrior or some great man? If the pains taken to excavate the grave in the rocky summit of the knoll and the labor to carry the stone to its top is any indication to rank, the inference is natural.

There is a marked difference in this grave and one made by the Kaw Indians in 1857 on my farm on a slight eminence near the river. The Kaw grave was scraped into the soft dirt about twenty inches deep, the body placed therein and short sticks laid over the grave, the ends resting on the surface of the ground and the dirt laid over the sticks. I saw this grave soon after made. Wolves had dug into it and some human goul had robbed the body of near all its trinkets. Six years ago I visited the same grave and not a vestige of bones was to be found, but the tin trinkets or beads on a linen cloth had remained, the sole remnants of what had been buried with the body. I brought them home and presented them with other relics to Mr. Brower, the author of this *Memoir*.

On a ledge of rock same height and about 300 yards from the grave on the knoll was a pile of stone which had been burned, and on examination we found that it contained human bones partly burned, with flint arrow-points. I inferred from the quantity found it had been a place of cremation or where savage man had disposed of his prisoners taken in

battle. The remains in both places appearing about the same age it possibly may indicate different modes of burial by the same people. The cremation or sacrifice seemed to have been accomplished at different times, as shown by the layers of charcoal and rock.

My son opened other Indian graves in this vicinity. All contained human remains and one contained a pipe made of catlinite. The graves are invariably placed on an eminence and partly covered with stone. I am unable to estimate the age of the graves I have examined as that of the Kaw, made in 1857, is completely obliterated, and those examined, made long before the advent of the whites, are in most cases well preserved and intact.

From my observations I infer that the red man has existed here from a very remote period and his remains show that he maintained a considerable village where now is Logan Grove, on the south side of the Smoky Hill River, above the mouth of the Republican.

My son took great interest in these explorations and intended to explore all the mounds, and report the results to the State Historical Society, but his work was cut short by death, August 5, 1888, in the twenty-first year of his age.

I took an active part in an effort to change the name of Davis County to Coronado, and Junction City to Cibola, but the final result was manifested in selecting the name "Geary" for this county, in honor of a former governor of the state.

The Henderson Village Site is situated below the bluffs and above the bank of Smoky Hill River, on one of those slightly terraces which are adjacent to the flood plain along the rivers in this region. Captain Henderson selected this picturesque terrace for the site of his residence just above the old prehistoric village site he has described, unconscious of the fact that the locality had been the seat of primitive industry long ages previous to the advent of civilized man.

When Captain Henderson explained to me at Logan Grove the discoveries mentioned, he produced a box containing an interesting quantity of flint implements, calcined human bones and potshards, which are of the same class of material observed at the Griffing site on Wild Cat Creek.

Unfortunately some of the most valuable material found has disappeared and consequently cannot now be reproduced as an illustration.

The question arises again as to whether cremation prevailed at the Henderson site, or the practice of heathen sacrifice. The description of the conditions where human bones were intermixed with charcoal and rock showing the action of fire, presents a subject which is entitled to a more extended consideration.



A PAIR OF CHERT TOMAHAWKS.
(Full Size.)

Elliott Village Site.

§7. THE UDDEN VILLAGE SITE.

DISCOVERY OF IMPORTANT INDIAN LODGE SITES ON PAINT CREEK AT THE MOST SOUTHERN BEND OF SMOKY HILL RIVER.

Professor J. A. Udden, in 1881, then an instructor in Bethany Academy at Lindsborg, Kansas, commenced, and in 1888 completed, the exploration of certain artificial mounds on Paint Creek, a small tributary of Smoky Hill River.

There are fifteen mounds in the group he describes, on the west side of the creek something more than a mile south of the river, which are on the S. E. $\frac{1}{4}$ of N. W. $\frac{1}{4}$ of Sec. 12, T. 18 S., R. 4 W., in McPherson County. Professor Udden has described these earthworks as being of circular form with a diameter of twenty or twenty-five feet, not more than three feet in height, the average being about two feet, while some rise but slightly above the level of the plain where they are situated.

Exploration revealed the character and contents of the mounds, which were composed principally of loose soil containing the bones of animals, pottery shards, pieces of charcoal, pockets of ashes, flint spalls, various arrow-heads, scrapers and flint knives. Pieces of sandstone and of limestone indicated the action of fire. No human remains were discovered, and the statement has been made by Professor Udden that: "In a general way the contents of these mounds may be said to resemble the contents of the Kjökkenmöddings of Northern Europe."

His continued description recites that buffalo bones were numerous, indicating such fractures as would lead to the presumption that the marrow was extracted for domestic purposes. Other bones were identifiable as those of the deer, antelope, wolf, dog, wildcat, skunk, wild turkey, the vertebræ of various fishes and the valves of clams.

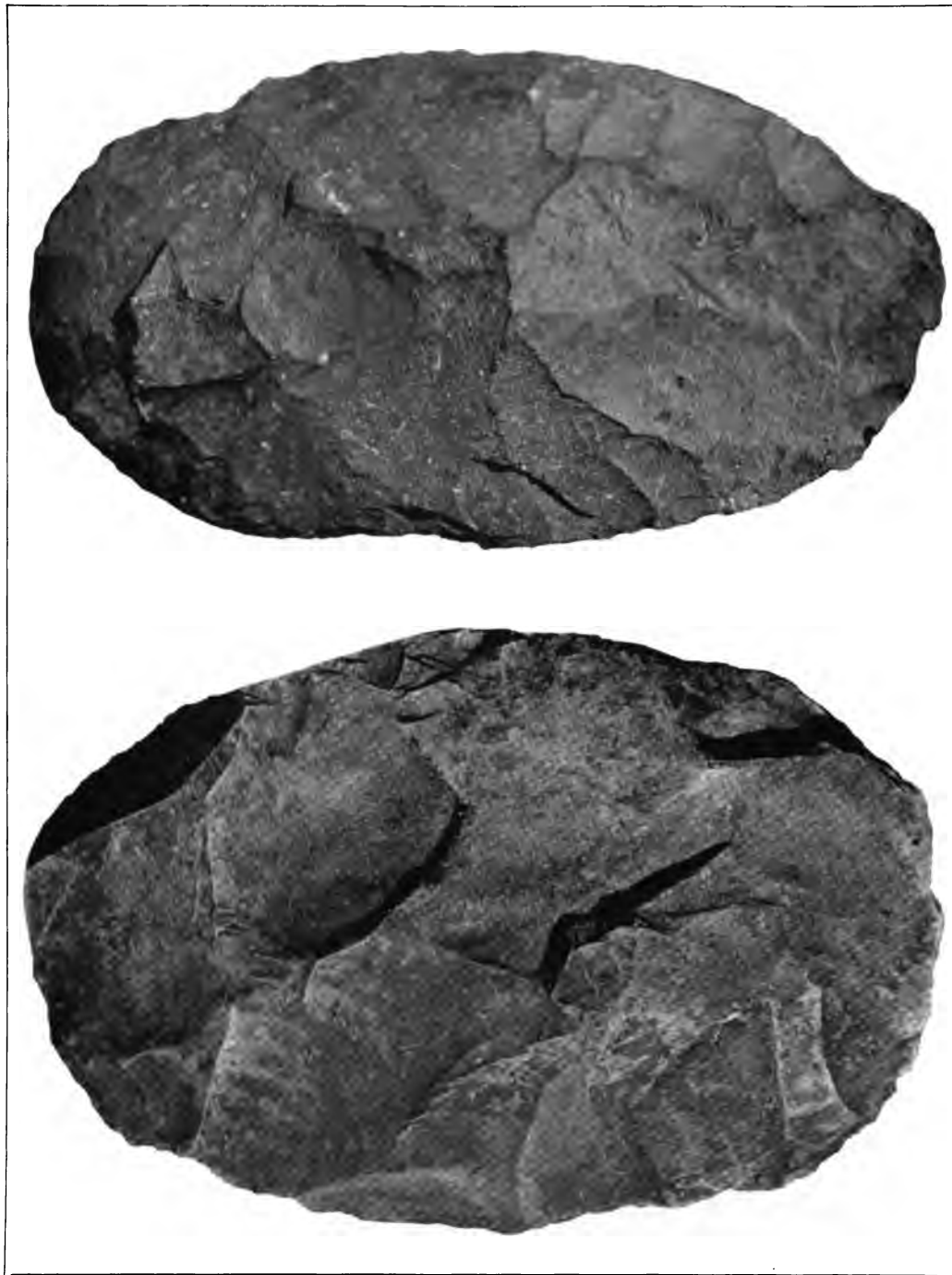
A piece of chain mail found in one of the mounds in an advanced stage of decomposition, from oxidization in contact with moisture, and which has been either lost or stolen, indicates that probably the

inhabitants of this village were at an early date in contact with Europeans, possibly with Coronado or some of his lost followers.

Some portions of the flint used for chipped implements contains "silicified *fusulina* shells and must have been brought from the region of the cherty limestone further east in the state." (The chert dips under the Dakota formation only about eighteen miles due east of the Udden Village Site, and not more than twelve miles to the northeast, down the east bank of Smoky Hill River). Broken catlinite pipes, metates of sandstone, grooved hammers, some of which from the description seem to be of Sioux quartzite from the drift area, one nipple-plate of white quartz and of artistic finish, and many scrapers and potshards enlarge the quantity and enhance the number of specimens unearthed, which constitute a collection at the academy at Lindsborg. On a farm a few miles southwest of the lodge sites on Paint Creek, several catlinite pipes and a piece of pipestone have been found, but by whom does not appear.

The carefully prepared descriptive article (unpublished) which Professor Udden has written, intended to be illustrated with many plates showing the peculiarities of the earthen vessels, bone tools and flint implements, is not available for the pages of this *Memoir*. It is an interesting and valuable article, intended to perpetuate the discoveries accomplished, which are described so minutely that the character of the implements are identifiable in comparison with those excavated by Mr. Keagy at the Palenske village on Mill Creek, and are not dissimilar to the archæologic material found at the Griffing and other sites along the Kansas River, although there is that general variance in form and workmanship distinguished by the usual difference among Indians of the same tribe whose habitations are fixed at points sufficiently remote from each other to influence a savage artificer in the use of material which differs in character. The Udden village was on the Dakota formation and the Palenske site is upon the Permo-Carboniferous.

Professor Udden's unpublished paper describing his carefully conducted explorations seems to indicate, with but little doubt, that the Paint Creek mounds were aboriginal lodges covered with earth, and that the lapse of time precipitated decay.



THIN CHIPPED FLINT BLADES.
(Full Size.)
Elliott Village Site.



GROOVED AXE OF SIOUX QUARTZITE.

(Full Size.)

From the Baldwin Village Site on Antelope Creek, Wabaunsee County, Kansas.

Sioux quartzite, supplying boulders in Kansas, occupies an area of several counties, mostly drift-covered, in the southeast corner of South Dakota, extending to the northwest corner of Iowa, and to the Pipestone quarry and the Mound at Luverne in Rock County, Minnesota. The same rock formation also makes a high and broad ridge in the north part of Cottonwood County, Minnesota, reaching east into the edge of Watonwan County. The boulders near Manhattan, Kansas, may have been derived by glacial transportation from any part of these extensive outcrops in Minnesota and South Dakota. W. U.

§ 8. ADDITIONAL EVIDENCES.

CURTAILED DESCRIPTION OF THE BALDWIN, DISNEY, HILL, STOCKDALE AND SEVERAL UNNAMED ANCIENT VILLAGE SITES.

With Mr. Jasher H. Brous, April 6, 1897, I explored the Antelope Creek locality in Wabaunsee County. Hon. Sherman A. Baldwin has carefully gathered into a cabinet at his home on the S. W. $\frac{1}{4}$ of Sec. 20, T. 10, R. 10, many flint implements, bone and shell beads, stone axes, arrow-points and a quantity of potshards and flint knives. The village site is situated where Mr. Baldwin's house stands, and at his front door along the terraces of his cultivated yard, I gathered a quantity of potshards which, in ornamentation and form, are of the same character as the peculiar class of material found at and near the Griffing site in Riley County. The chipped implements and spalls are of the same native chert, with few exceptions, which has been described as general in this locality. Mr. Baldwin has explored several mounds in the neighborhood from which the beads mentioned were secured, which will be hereafter described in comparison with other material of the same character.

In 1860, Mr. Baldwin, then a resident where he now lives, enjoyed a successful buffalo hunt on the plains but a short distance west of Junction City.

At Deep Creek we secured a few flint implements, one of which is a flat slab of chert chipped to a cutting edge.

Also with Mr. Brous an exploration was made of the Disney Village Site on the S. W. $\frac{1}{4}$ of Sec. 29, T. 9, R. 8, Pottawatomie County. All of the flint implements of this locality are of peculiar form, and the site of the village is named after a young man who discovered it in 1895. It is situated upon a slightly hill above the Big Blue River and below the table lands bordering the valley. Potshards are abundant, and it would seem that the ancient occupants were of the same race of people who occupied the locality north of the Kansas River, although the implements are of curious form and the village was on the top



PECULIAR IMPLEMENTS OF THE DISNEY VILLAGE SITE.

of a hill well situated for defensive warfare. The peculiar form of the flint implements at the Disney site, several hundred of which have been found, many of them with the points broken off, can be noticed in Plate XVIII.

During the time of our exploration along the west side of Big Blue River, we discovered a prehistoric village site at Rocky Ford, above the mouth of Cedar Creek. The village was handsomely situated near where is now a flouring mill on the east bank of the river, and its people made catlinite pipes and earthen vessels, evidences of which have been catalogued.

At the S. E. $\frac{1}{4}$ of Sec. 32, T. 9, R. 8, on the farm of Mrs. Lena Richards, there exists a considerable group of lodge-circles and two or more artificial mounds. The conveniences of the time did not permit of thorough exploration. The circles or hut-rings are very distinct though of much greater age than those at the Kaw village, three miles down the river. Mrs. Richards exhibited a cabinet of flint arrow-points, spears and chipped implements which she had gathered in the surrounding fields.

On our return the Kaw Village Site on the Kansas was explored, and less than a mile to the westward is situated the site of an ancient village, which had been submerged by the overflow of the Big Blue River. A cut on the Union Pacific Railroad through the site exposed the flint implements and pieces of pottery which lie about three feet below the present surface of the ground, covered with sedimentary deposits by overflowage.

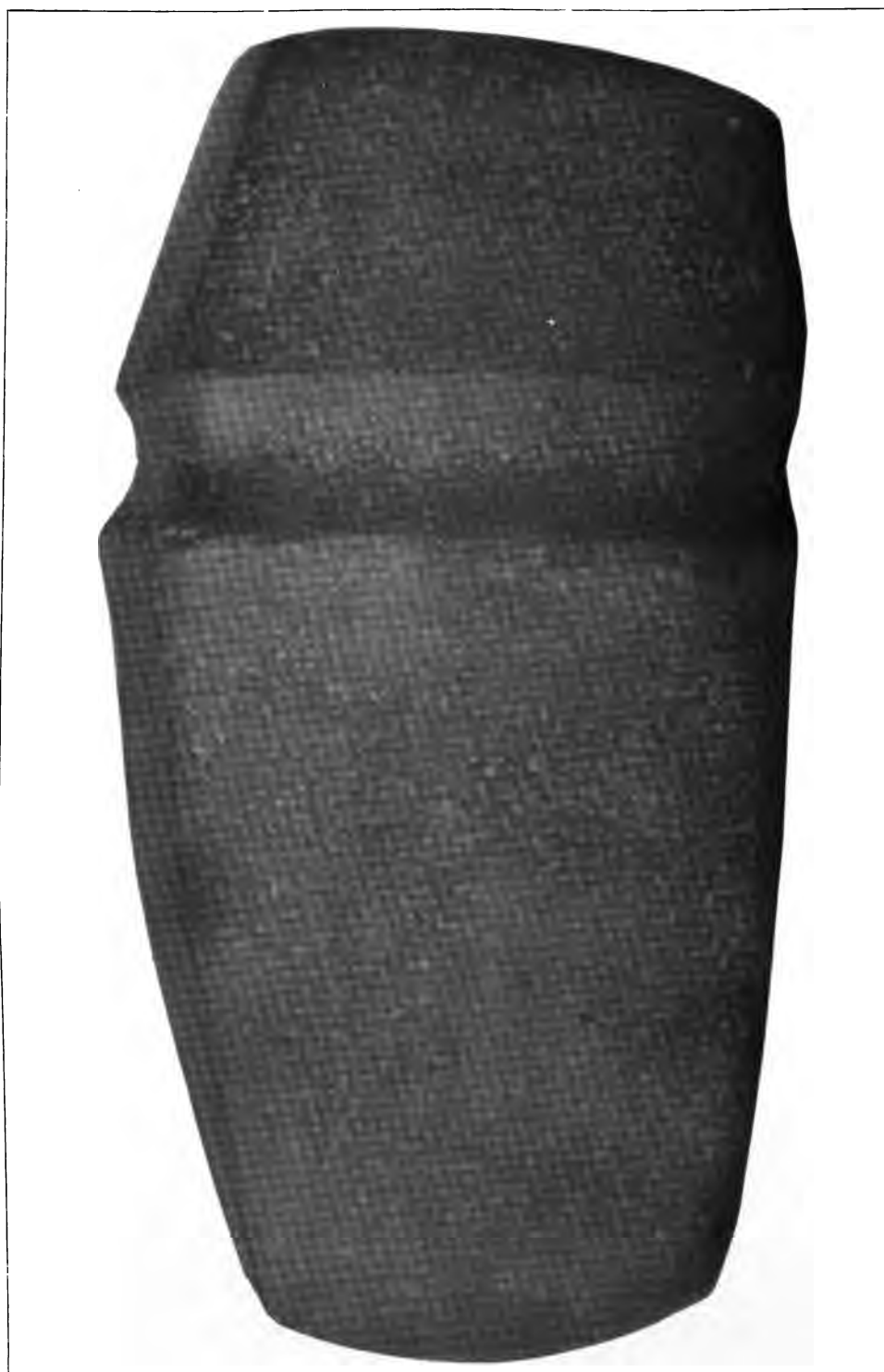
There is an unexplored ancient village site near the mouth of Mill Creek in Wabaunsee County, and also two small sites on the same creek below the city of Alma and one above the Palenske site on the West Branch, which were discovered by Mr. Keagy.

On March 18th, the village sites at Stockdale, near the mouth of Mill Creek in Riley County, were explored.

The valley of Blue River is a fertile region with considerable areas of timber, bordered on either side by high bluffs, which give rise to many small creeks. The Stockdale region shows conclusively that the prehistoric occupancy was quite extensive, the inhabitants using the



THE STOCKDALE SPADE. †.



GROOVED DIORITE AXE.

From Sec. 1, T. 9, R. 8, Pottawatomie County, Kansas. Owned by Mrs. Elizabeth Hoyt Purcell. Engraved from a photograph furnished by Mr. and Mrs. S. V. Lee. Length $8\frac{1}{4}$ inches, width $4\frac{1}{2}$ inches, thickness $2\frac{3}{8}$ inches, weight 92 ounces.

native chert for implements, and they were also adepts in the art of making earthen vessels. The settlements extended along a terrace on both sides of Mill Creek, and there are some indications that cultivation of the soil was an industry coupled with extensive facilities for hunting, which was the chief support of the inhabitants of the place, several centuries previous to the advent of the present community.

Mr. A. O. Hollingsworth, who resides at the village of Stockdale, has a cabinet of unusually fine chipped implements, which he has gathered along the terrace mentioned, among which is a small catlinite pipe, not finished with a bowl or stem perforation. From a pair of flint spades, the one in Plate XIX was selected for illustration. It is of the native blue chert, slightly infringed with calcareous tufa and



CATLINITE PIPE.

(Full Size).

From Stockdale.

plainly bears the usual indications that it had been used as an agricultural implement. Many flint scrapers were scattered about Mr. Hollingsworth's yard. Mr. J. S. Crum, residing on the opposite side of the creek, has for many years picked up chipped flint implements from a considerable portion of his cultivated fields. His son has a catlinite ornament in the shape of a bird, perforated

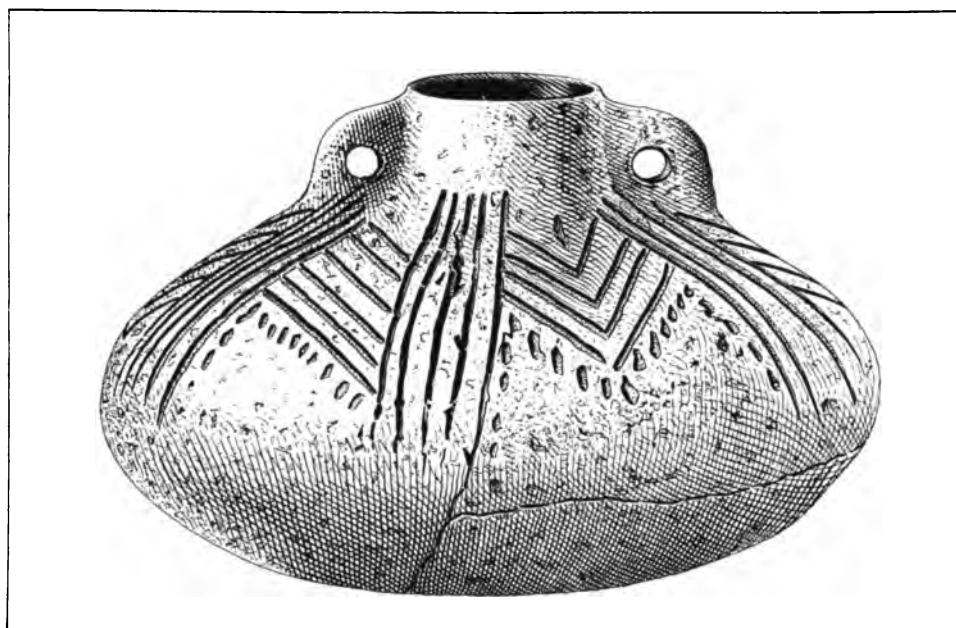
through the head and ornamented on one side, the opposite portion appearing smoothly worn.

Across the valley on the east side of the river are high bluffs bordering Carnahan Creek. In a mound on one of these bluffs Mr. Griffing secured glass beads and two small coils of brass wire. In a letter dated October 16, 1897, Mr. Griffing wrote as follows:

MR. J. V. BROWER, DEAR SIR:—In regard to finding the glass beads in a mound, I will say that I was, during the summer of 1881, in the employ of Mr. F. G. Adams, Secretary of the State Historical Society. During the period I opened several mounds along the Blue and Kansas rivers. The mound in question is located on the top of one of the highest bluffs on the east bank of the Big Blue River, near the point where Carnahan Creek leaves its narrow valley and crosses the river bottom and unites with the Blue. The mound was similar in appearance to many others I have opened, was about two feet in height and perhaps

twenty-five feet across the base, and contained fragments of burned human bones. Mingled with these I found six flint arrow-points, two small coils of brass wire and quite a number of small glass beads, blue and white in color. The burial in this mound was never disturbed by an intrusive burial. What I found that summer is recorded in Vol. 3 of State Historical Society collections. Yours truly, W. J. GRIFFING.

Not far below the mouth of Carnahan Creek is situated the Hill Village Site on the farm of Mr. G. W. Hill, on Sections 3 and 10, T. 9 S., R. 7 E., on the Big Blue River. Near by from the bank of the river an earthen vessel was excavated, which is the subject of the accompanying illustration on this page.



EARTHEN VESSEL.

(Full Size).

Hill Village Site.

Mr. Hill has generously furnished a grooved chalk pipe, made in the shape of a stone hammer, perforated for the stem and bowl. A portion of the soft chalky material forming the bowl is broken away. Undoubtedly the handle of the hammer fastened around the groove was a long pipestem of wood.

The bowl is not of unusual size, and the inside portion shows plainly that it had been used as a pipe, but there are no evidences of fire remaining.



CHALK PIPE.
(Full Size).
Hill Village Site.

The chalk could not have been intended for any considerable service as a hammer, as the material is easily abraded with the point of a knife blade.

Some chipped jasper knives and many blue chert implements have been found by Mr. Hill on his farm. One of the jasper knives is the subject of illustration, and a portion of the glass beads found by Mr. Griffing in one of the mounds above this village site will be noticed on a succeeding page.

On Friday, April 9th, I made an archæologic examination of the lower portion of the valley of the Vermilion River in Pottawatomie County. I drove by team from Wamego to near the mouth of the Vermilion, where I met Mr. R. W. Dike at



JASPER KNIFE.
(Full Size).
Hill Village Site.

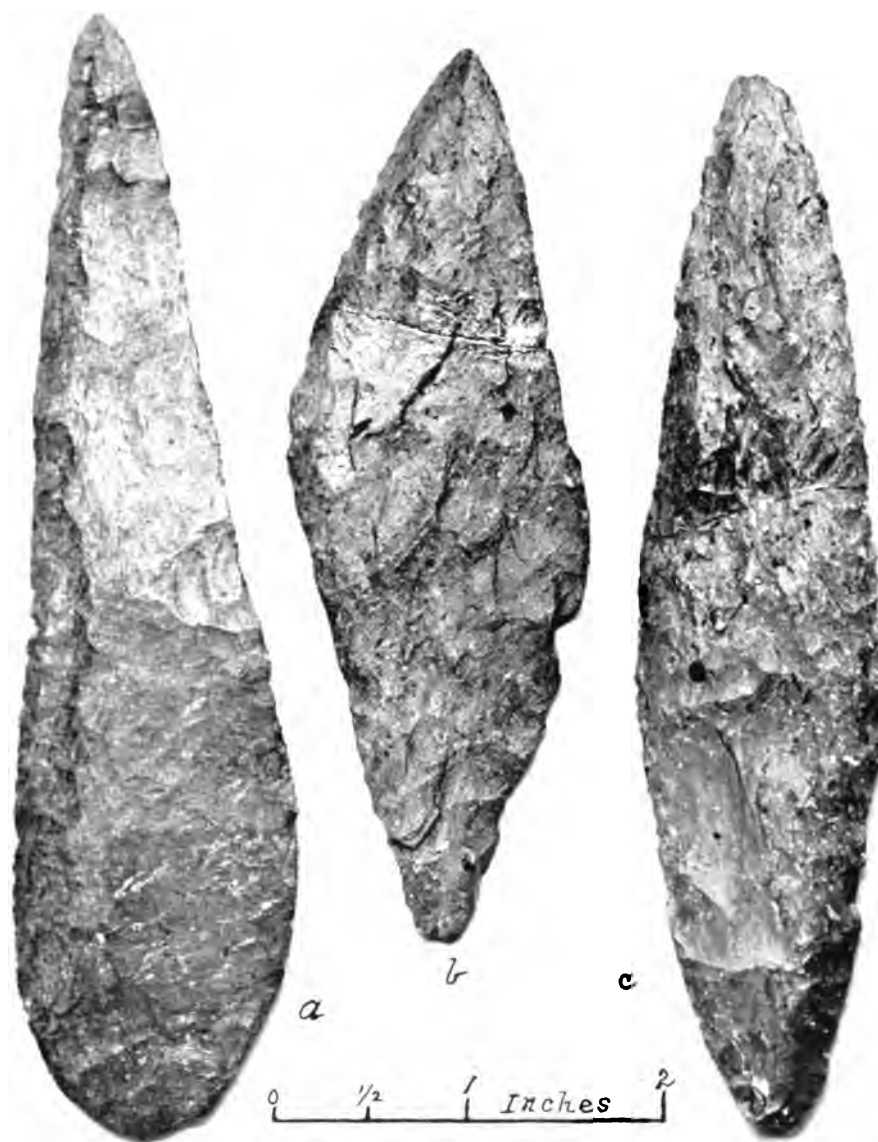
his farm on Sec. 30, T. 9. S., R. 11 E. Mr. Dike had, some years ago, opened a mound on his farm, principally constructed of large stones, covered over with earth. Remains of the dead were found in an oblong receptacle in the nature of a cist, made of stone, and Mr. Dike claims to have found the quarry from which the rock was removed, in a neighboring bluff. No pottery and few chipped flints had ever been found on the Dike farm. Crossing the road to section 31, and following a regularly formed terrace, the Dike Village Site was discovered, where potshards and flint implements were scattered over the surface of the cultivated field for nearly half a mile.

In passing up the flat and muddy valley of the Vermilion, little else of interest was found except some magnificent specimens of quartzite boulders embedded in the drift, until Brush Creek was reached, where there is a small village site on the west side. There are only a few lodge sites on Brush Creek, which were occupied by people who made pottery vessels.

At Louisville, in a caved bank of Rock Creek, several feet below the present surface, there is a large deposit of ashes. The identity of this deposit is uncertain.

Across the McDowell Creek from the Elliott Village Site there was a small settlement of savages, and opposite the farm house of Claus Garenson, on the west side of the south fork, upon the farm of James Edwards, there is a considerable area which accommodated an outlying village of Indians a mile and a half from the Elliott site. The indications are that the occupants were of the same tribe of wild hunters who inhabited the Elliott Village Site. From Andrew Engstrom and Edward Edwards a quantity of chipped implements were procured.

The McArthur Village Site is situated on Sec. 30, T. 12 S., R. 8 E., on a small upper branch of McDowell Creek. Daniel McArthur has resided at this locality many years, and when I explored the site, March 24th, he entertainingly described the archæologic material that had been found on his farm, including one catlinite pipe and many spear-heads and arrow-points, very few of which had been preserved. One handsome spear-head, donated by Master Frederick Cross, is illustrated in Plate IV. Admiral Moresby, of the English Navy, is supposed to

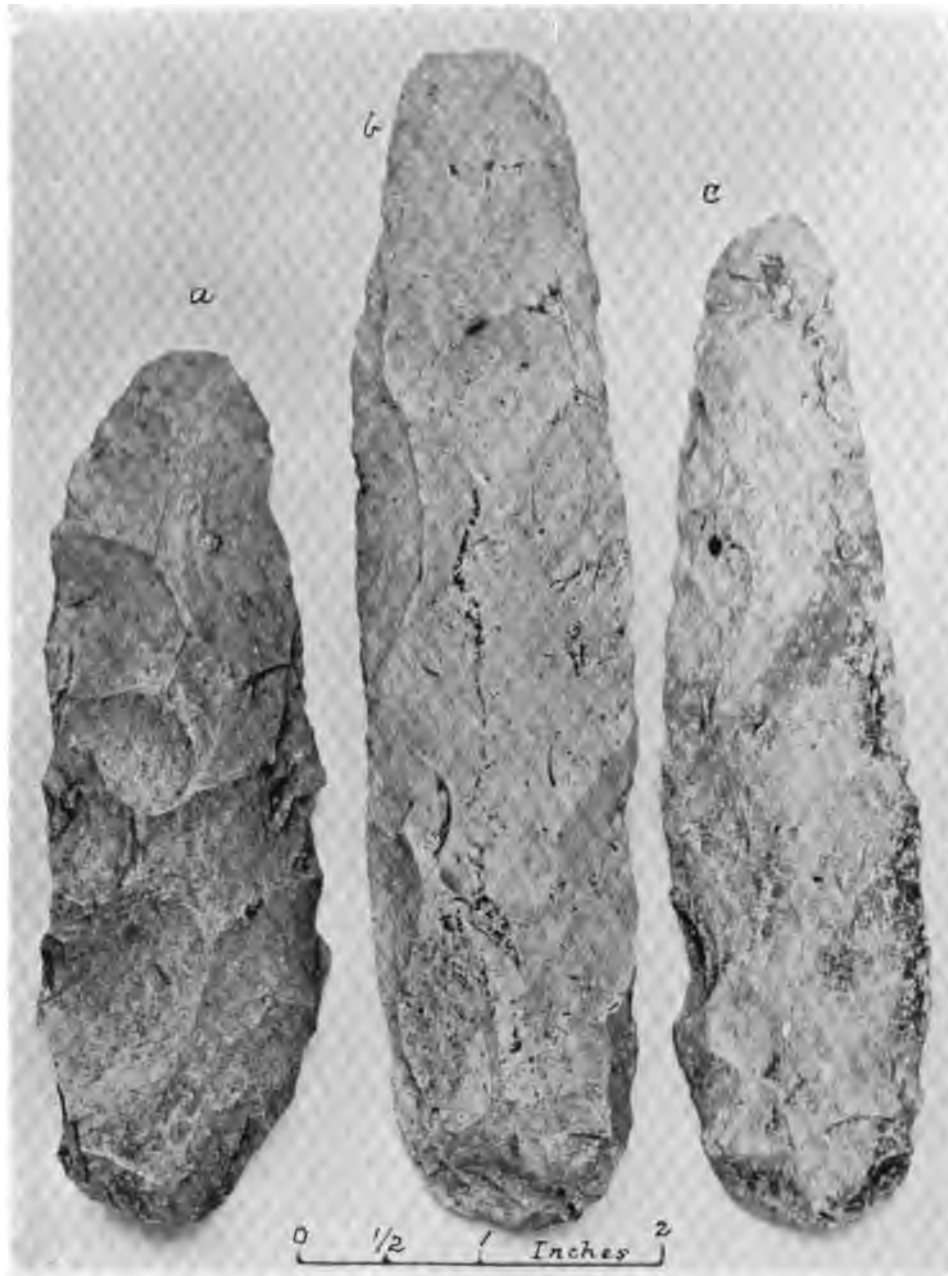


FLINT KNIVES.
(Full Size).

a. From the excavation for a cellar on the farm of Jasher H. Brous. Donated for illustration by Mr. J. C. Van Everen.

b and c. From the Baldwin Village Site on Antelope Creek.

Note the difference from opposite page illustrations.



FLINT KNIVES.
(Full Size).

From the Elliott Village Site.

Donated for illustration by Mr. L. R. Elliott.

Note the difference from opposite page illustrations.

have, in England, a collection of the flint implements from the McArthur site, which are similar to the other implements found on McDowell Creek, according to the specimens this day found and the description intelligently offered by Mr. McArthur, and Mrs. Louisa McArthur, a native resident of Geary County.

Hon. John Davis, of Junction City, on the 30th day of March, described to Mr. Elliott and myself certain indications of early Indian occupancy where his home is now situated. This is supposed to have been the home of the Paducas, when Bourgmont visited them, in 1724, but *Wilder's Report*, 1876, gives Dutisne the honor of a prior investigation, in 1719.

Having failed to secure sufficient information concerning the village site on a branch of Lyons Creek, any further description is necessarily deferred. A large number of flint implements have been found there.

No one can regret more than I do, that descriptive information concerning the village sites on Deep Creek is not now available, caused by the failure to have them properly explored. This omission comes from a legitimate cause which was unavoidable. When Mr. Elliott undertook certain explorations, among which the Deep Creek locality was included, he was threatened seriously by hot weather and was compelled to withdraw from the field. This explanation also applies to the Humboldt and Clark Creek localities, where it is known that other Indian encampments were maintained, and further desirable explorations are necessarily postponed.

Dr. Adams, of the Historical Society, requested that this *Memoir* be presented January 18, 1898, when it was not expected that it could be completed until much later in the year, and it will be surprising to me if many errors are not discovered.

At the time these lines are written an important letter from Professor F. W. Putnam, confirming the classification placed upon the flint tomahawks and a few other implements described, comes too late to secure permission to publish at this time. It is, however, very gratifying to be relieved from the thought of possible error, by a high authority whose opinions are pre-eminently respected.

The destruction of *all* my effects in 1896, by fire at St. Paul, has placed me where desirable material is not now available.

§ 9. RELATION OF CORONADO.

EXTRACTS PERTINENT TO THE DISCOVERY OF QUIVIRA, FROM THE RECORD OF THE CHRONICLERS AND HISTORIANS.

It is a somewhat difficult labor to select from the extended accounts which are available, such portions as relate to the discovery of the Province of Quivira, in 1541, for if all the accounts were collected into this *Memoir* the paper would be disproportionate. I have therefore reluctantly decided upon a few extracts from the record of the chroniclers and historians which will best subserve the present purpose to briefly give such sufficient facts as will fairly state the circumstances prevailing at the time Quivira was originally discovered, and the route of travel followed by Coronado and his officers and attendants.

The translation of Coronado's letter to the King, dated October 20, 1541, appearing in Winship's *Memoir*, (pp. 580-583), is given, with full credit to the translator:

HOLY CATHOLIC CÆSARIAN MAJESTY: On April 20 of this year I wrote to Your Majesty from this province of Tiguex, in reply to a letter from Your Majesty dated in Madrid, June 11 a year ago. I gave a detailed account of this expedition, which the viceroy of New Spain ordered me to undertake in Your Majesty's name to this country which was discovered by Friar Marcos of Nice, the provincial of the order of Holy Saint Francis. I described it all, and the sort of force I have, as Your Majesty had ordered me to relate in my letters; and stated that while I was engaged in the conquest and pacification of the natives of this province, some Indians who were natives of other provinces beyond these had told me that in their country there were much larger villages and better houses than those of the natives of this country, and that they had lords who ruled them, who were served with dishes of gold, and other very magnificent things; and although, as I wrote Your Majesty, I did not believe it before I had set eyes on it, because it was the report of Indians and given for the most part by means of signs, yet as the report appeared to me to be very fine and that it was important that it should be investigated for Your Majesty's service, I determined to go and see it with the men I have here. I started from this province on the 23d of last April, for the place where the Indians wanted to guide me. After nine day's march I reached some plains, so vast that I did not find their limit anywhere that I went, although I

traveled over them for more than 300 leagues. And I found such a quantity of cows in these, of the kind that I wrote Your Majesty about, which they have in this country, that it is impossible to number them, for while I was journeying through the plains, until I returned to where I first found them, there was not a day that I lost sight of them. And after seventeen days' march I came to a settlement of Indians who are called Querechos, who travel around with these cows, who do not plant, and who eat the raw flesh and drink the blood of the cows they kill, and they tan the skins of the cows, with which all the people of this country dress themselves here. They have little field tents made of the hides of the cows, tanned and greased, very well made, in which they live while they travel around near the cows, moving with these. They have dogs which they load, which carry their tents and poles and belongings. These people have the best figures of any that I have seen in the Indies. They could not give me any account of the country where the guides were taking me. I traveled five days more as the guides wished to lead me, until I reached some plains, with no more landmarks than as if we had been swallowed up in the sea, where they strayed about, because there was not a stone, nor a bit of rising ground, nor a tree, nor a shrub, nor anything to go by. There is much very fine pasture land, with good grass. And while we were lost in these plains, some horsemen who went off to hunt cows fell in with some Indians, who also were out hunting, who are enemies of those that I had seen in the last settlement, and of another sort of people who are called Teyas; they have their bodies and faces all painted, are a large people like the others, of a very good build; they eat the raw flesh just like the Querechos, and live and travel round with the cows in the same way as these. I obtained from these an account of the country where the guides were taking me, which was not like what they had told me, because these made out that the houses there were not built of stones, with stories, as my guides had described it, but of straw and skins, and a small supply of corn there. This news troubled me greatly, to find myself on these limitless plains, where I was in great need of water, and often had to drink it so poor that it was more mud than water. Here the guides confessed to me that they had not told the truth in regard to the size of the houses, because these were of straw, but that they had done so regarding the large number of inhabitants and the other things about their habits. The Teyas disagreed with this, and on account of this division between some of the Indians and the others, and also because many of the men I had with me had not eaten anything except meat for some days, because we had reached the end of the corn which we carried from this province, and because they made it out more than forty days' journey from where I fell in with the Teyas to the country where the guides were taking me, although I appreciated the trouble and danger there would be in the journey owing to the lack of water and

corn, it seemed to me best, in order to see if there was anything there of service to Your Majesty, to go forward with only thirty horsemen until I should be able to see the country, so as to give Your Majesty a true account of what was to be found in it. I sent all the rest of the force I had with me to this province, with Don Tristan de Arellano in command, because it would have been impossible to prevent the loss of many men, if all had gone on, owing to the lack of water and because they also had to kill bulls and cows on which to sustain themselves. And with only the thirty horsemen whom I took for my escort, I traveled forty-two days after I left the force, living all this while solely on the flesh of the bulls and cows which we killed, at the cost of several of our horses which they killed, because, as I wrote Your Majesty, they are very brave and fierce animals; and going many days without water, and cooking the food with cow dung, because there is not any kind of wood in all these plains, away from the gullies and rivers, which are very few.

It was the Lord's pleasure that, after having journeyed across these deserts seventy-seven days, I arrived at the province they call Quivira, to which the guides were conducting me, and where they had described to me houses of stone, with many stories; and not only are they not of stone, but of straw, but the people in them are as barbarous as all those whom I have seen and passed before this; they do not have cloaks, nor cotton of which to make these, but use the skins of the cattle they kill, which they tan, because they are settled among these on a very large river. They eat the raw flesh like the Querechos and Teyas: they are enemies of one another; but are all of the same sort of people, and these at Quivira have the advantage in the houses they build and in planting corn. In this province of which the guides who brought me are natives, they received me peaceably, and although they told me when I set out for it that I could not succeed in seeing it all in two months, there are not more than twenty-five villages of straw houses there and in all the rest of the country that I saw and learned about, which gave their obedience to Your Majesty and placed themselves under your royal overlordship. The people here are large. I had several Indians measured, and found that they were ten palms in height; the women are well proportioned and their features are more like Moorish women than Indians. The natives here gave me a piece of copper which a chief Indian wore hung around his neck; I sent it to the viceroy of New Spain, because I have not seen any other metal in these parts except this and some little copper bells which I sent him, and a bit of metal which looks like gold. I do not know where this came from, although I believe that the Indians who gave it to me obtained it from those whom I brought here in my service, because I cannot find any other origin for it nor where it came from. The diversity of languages which exists in this country and my not having anyone who understood them, because they speak their own language in each

village, has hindered me, because I have been forced to send captains and men in many directions to find out whether there was anything in this country which could be of service to Your Majesty. And although I have searched with all diligence I have not found or heard of anything, unless it be these provinces, which are a very small affair. The province of Quivira is 950 leagues from Mexico. Where I reached it, it is in the fortieth degree. The country itself is the best I have ever seen for producing all the products of Spain, for besides the land itself being very fat and black and being very well watered by the rivulets and springs and rivers, I found prunes like those of Spain [or I found everything they have in Spain] and nuts and very good sweet grapes and mulberries. I have treated the natives of this province, and all the others whom I found wherever I went, as well as was possible, agreeably to what Your Majesty had commanded, and they have received no harm in any way from me or from those who went in my company. I remained twenty-five days in this province of Quivira, so as to see and explore the country and also to find out whether there was anything beyond which could be of service to Your Majesty, because the guides who had brought me had given me an account of other provinces beyond this. And what I am sure of is that there is not any gold nor any other metal in all that country, and the other things of which they had told me are nothing but little villages, and in many of these they do not plant anything and do not have any houses except of skins and sticks, and they wander around with the cows; so that the account they gave me was false, because they wanted to persuade me to go there with the whole force, believing that as the way was through such uninhabited deserts, and from the lack of water, they would get us where we and our horses would die of hunger. And the guides confessed this, and said they had done it by the advice and orders of the natives of these provinces. At this, after having heard the account of what was beyond, which I have given above, I returned to these provinces to provide for the force I had sent back here and to give Your Majesty an account of what this country amounts to, because I wrote Your Majesty that I would do so when I went there. I have done all that I possibly could to serve Your Majesty and to discover a country where God Our Lord might be served and the royal patrimony of Your Majesty increased, as your loyal servant and vassal. For since I reached the province of Cibola, to which the viceroy of New Spain sent me in the name of Your Majesty, seeing that there were none of the things there of which Friar Marcos had told, I have managed to explore this country for 200 leagues and more around Cibola, and the best place I have found is this river of Tiguex where I am now, and the settlements here. It would not be possible to establish a settlement here, for besides being 400 leagues from the North sea and more than 200 from the South sea, with which it is impossible to have any sort

of communication, the country is so cold, as I have written to Your Majesty, that apparently the winter could not possibly be spent here, because there is no wood, nor cloth with which to protect the men, except the skins which the natives wear and some small amount of cotton cloaks. I sent the viceroy of New Spain an account of everything I have seen in the countries where I have been, and as Don Garcia Lopez de Cardenas is going to kiss Your Majesty's hands, who has done much and has served Your Majesty very well on this expedition, and he will give Your Majesty an account of everything here, as one who has seen it himself, I give way to him. And may Our Lord protect the Holy Imperial Catholic person of Your Majesty, with increase of greater kingdoms and powers, as your loyal servants and vassals desire. From this province of Tiguex, October 20, in the year 1541. Your Majesty's humble servant and vassal, who would kiss the royal feet and hands:

FRANCISCO VAZQUEZ CORONADO.

NARRATIVE OF PEDRO DE CASTANEDA.

Henri Ternaux-Compans, translator of the Spanish Narrative, rendered by Pedro de Castaneda into French (Paris, 1838), has been pronounced as in error to some extent by Mr. Winship. This led to a translation of the MSS. by Mr. Winship from a copy of the original text in the Lenox Library in New York City, made in 1596 at Seville. From this important translation¹ that portion relating particularly to Quivira is quoted in full:

Chapter 7, which treats of the plains that were crossed, of the cows, and of the people who inhabit them.

We have spoken of the settlements of high houses which are situated in what seems to be the most level and open part of the mountains, since it is 150 leagues across before entering the level country between the two mountain chains which I said were near the North sea and the South sea, which might better be called the Western sea along this coast. This mountain series is the one which is near the South sea. In order to show that the settlements are in the middle of the mountains, I will state that it is 80 leagues from Chichilticalli, where we began to cross this country, to Cibola; from Cibola, which is the first village, to Cicuye, which is the last on the way across, is 70 leagues; it is 30 leagues from Cicuye to where the plains begin. It may be we went across in an indirect or roundabout way, which would make it seem as

1. Winship's *Coronado Expedition*, pp. 526-530.

if there was more country than if it had been crossed in a direct line, and it may be more difficult and rougher. This can not be known certainly, because the mountains change their direction above the bay at the mouth of the Firebrand (Tizon) river.

Now we will speak of the plains. The country is spacious and level, and is more than 400 leagues wide in the part between the two mountain ranges—one, that which Francisco Vazquez Coronado crossed, and the other that which the force under Don Fernando de Soto crossed near the North sea, entering the country from Florida. No settlements were seen any where on these plains.

In traversing 250 leagues, the other mountain range was not seen, nor a hill nor a hillock which was three times as high as a man. Several lakes were found at intervals; they were round as plates, a stone's throw or more across, some fresh and some salt. The grass grows tall near these lakes; away from them it is very short, a span or less. The country is like a bowl, so that when a man sits down, the horizon surrounds him all around at the distance of a musket shot. There are no groves of trees except at the rivers, which flow at the bottom of some ravines where the trees grow so thick that they are not noticed until one was right on the edge of them. They are of dead earth. There are paths down into these, made by the cows when they go to the water, which is essential throughout these plains. As I have related in the first part, people follow the cows, hunting them and tanning the skins to take to the settlements in the winter to sell, since they go there to pass the winter, each company going to those which are nearest, some to the settlements at Cicuye, others toward Quivira, and others to the settlements which are situated in the direction of Florida. These people are called Querechos and Teyas. They described some large settlements, and judging from what was seen of these people and from the accounts they gave of other places, there are a good many more of these people than there are of those at the settlements. They have better figures, are better warriors, and are more feared. They travel like the Arabs, with their tents and troops of dogs loaded with poles and having Moorish pack saddles with girths. When the load gets disarranged, the dogs howl, calling some one to fix them right. These people eat raw flesh and drink blood. They do not eat human flesh. They are a kind people and not cruel. They are faithful friends. They are able to make themselves very well understood by means of signs. They dry the flesh in the sun, cutting it thin like a leaf, and when dry they grind it like meal to keep it and make a sort of sea soup of it to eat. A handful thrown into a pot swells up so as to increase very much. They season it with fat, which they always try to secure when they kill a cow. They empty a large gut and fill it with blood, and carry this around the neck to drink when they are thirsty. When they open the belly of a cow, they squeeze out the chewed grass and drink the juice that remains behind, because they say that this contains the

essence of the stomach. They cut the hide open at the back and pull it off at the joints, using a flint as large as a finger, tied in a little stick, with as much ease as if working with a good iron tool. They give it an edge with their own teeth. The quickness with which they do this is something worth seeing and noting.

There are very great numbers of wolves on these plains, which go around with the cows. They have white skins. The deer are pied with white. Their skin is loose, so that when they are killed it can be pulled off with the hand while warm, coming off like pigskin. The rabbits, which are very numerous, are so foolish that those on horseback killed them with their lances. This is when they are mounted among the cows. They fly from a person on foot.

Chapter 8, of Quivira, of where it is and some information about it.

Quivira is to the west of these ravines, in the midst of the country, somewhat nearer the mountains toward the sea, for the country is level as far as Quivira, and there they began to see some mountain chains. The country is well settled. Judging from what was seen on the borders of it, this country is very similar to that of Spain in the varieties of vegetation and fruits. There are plums like those of Castile, grapes, nuts, mulberries, oats, pennyroyal, wild marjoram, and large quantities of flax, but this does not do them any good, because they do not know how to use it. The people are of almost the same sort and appearance as the Teyas. They have villages like those in New Spain. The houses are round, without a wall, and they have one story like a loft, under the roof, where they sleep and keep their belongings. The roofs are of straw. There are other thickly settled provinces around it containing large numbers of men. A friar named Juan de Padilla remained in this province, together with a Spanish-Portuguese and a negro and a half-blood and some Indians from the province of Capothan, in New Spain. They killed the friar because he wanted to go to the province of the Guas, who were their enemies. The Spaniard escaped by taking flight on a mare, and afterward reached New Spain, coming out by way of Panuca. The Indians from New Spain who accompanied the friar were allowed by the murderers to bury him, and then they followed the Spaniard and overtook him. This Spaniard was a Portuguese, named Campo.

The great river of the Holy Spirit (Espiritu Santo), which Don Fernando de Soto discovered in the country of Florida, flows through this country. It passes through a province called Arache, according to the reliable accounts which were obtained here. The sources were not visited, because, according to what they said, it comes from a very distant country in the mountains of the South sea, from the part that sheds its waters onto the plains. It flows across all the level country and breaks through the mountains of the North sea, and comes out where the people with Don Fernando de Soto navigated it. This is

more than 300 leagues from where it enters the sea. On account of this, and also because it has large tributaries, it is so mighty when it enteres the sea that they lost sight of the land before the water ceased to be fresh.

This country of Quivira was the last that was seen, of which I am able to give any description or information. Now it is proper for me to return and speak of the army, which I left in Tiguex, resting for the winter, so that it would be able to proceed or return in search of these settlements of Quivira, which was not accomplished after all, because it was God's pleasure that these discoveries should remain for other peoples and that we who had been there should content ourselves with saying that we were the first who discovered it and obtained any information concerning it, just as Hercules knew the site where Julius Cæsar was to found Seville or Hispales. May the all-powerful Lord grant that His will be done in everything. It is certain that if this had not been His will Francisco Vazquez would not have returned to New Spain without cause or reason, as he did, and that it would not have been left for those with Don Fernando de Soto to settle such a good country, as they have done, and besides settling it to increase its extent, after obtaining, as they did, information from our army.

RELATION OF RICHARD HAKLUYT, PREACHER. VOYAGES TO
AMERICA BEFORE THE YEAR 1600. (EXTRACT).

THE REST OF THIS VOYAGE TO ACUCO, LIGUEX, CICUIC, AND QUIUIRA, AND
VNTO THE WESTERNE OCEAN, IS THUS WRITTEN IN THE GENERALL
HISTORIE OF THE WEST INDIES BY FRANCIS LOPEZ DE GOMERA,
CHAP. 214.

BEcause they would not returne to Mexico without doing something, nor with emptie hands, they agreed to passe further into the countrey which was tolde them to bee better and better. So they came to Acuco a towne vpon an exceeding strong hill. And from thence Don Garcias Lopez de Cardenas with his companie of horsemen went vnto the sea: and Francis Vasques went to Tiguex, which standeth on the banke of a great riuer. There they had news of Axa and Quiuira. There they sayde was a King whose name was Tatarrax, with a long beard, horie headed, and rich, which was girded with a Bracamart, which prayed vpon payre of beades, which worshipped a Crosse of golde, and the image of a woman, the Queene of heauen. This news did greatly reioyce and cheere vp the armie: although some thought it to bee false, and the report of the Friers
. From Cicuic they went to Quiuira, which

after their accompt, is almost three hundred leagues distant, through mighty plaines, and sandie heathers so smooth, and wearisome, and bare of wood, that they made heapes of ox-dung for want of stones and trees, that they might not lose themselves at their returne: for three horses were lost on that plaine, and one Spaniard, which went from his companie on hunting. All that way and plaines are as full of crookebacked oxen, as the mountaine Serena in Spain is of sheepe: but there is no people but such as keepe those cattell. They were a great succour for the hunger and want of bread which our people stode in. One day it rayned in that plaine a great showre of haile, as bigge as Oranges, which caused many teares, weakenesse, and vows. At length they came to Quiuira and found Tatarrax, whome they sought, an hoarie headed man, naked, and with a iewell of copper hanging at his necke, which was all his riches. The Spaniards seeing the false report of so famous riches, returned to Tiguex, without seeing either crosse or shew of Christianitie: and from thence to Mexico. In the ende of March of the yeere 1542, Francis Vasquez fell from his horse in Tiguex, and with the fall fell out of his wits, and became madde. Which some tooke to bee for griefe, and others thought it to bee but counterfeited: for they were much offended with him, because hee peopled not the countrey.

Quiuira is in fortie degrees: it is a temperate countrey, and hath very good waters, and much grasse, plumes, mulberries, nuts, melons and grapes, which ripen very well. There is no cotton: and they apparell themselves with ox-hides and deeres skiunes. Friar Iohn de Padilla stayed behinde in Tigues, with another of his companions called Friar Francis, and returned to Quiuira, with some dozen Indians of Mechuacan, and with Andrew de Campo a Portugall, the gardiner of Francis de Solis: He tooke with him horses and mules with prouision. He tooke sheepe and hennes of Castile, and ornaments to say Masse withall. The people of Quiuira slewe the Friars, and the Portugall escaped with certaine Indians of Mechuacan. Who albeit at that time he escaped death, yet could hee not free himselfe out of captiuite: for by and by after they caught him againe. But ten moneths after he was taken captiue, hee fled away with a couple of dogs. As hee trauled, he blessed the people with a crosse, whereunto they offered much, and wheresoeuer hee came, they giue him almes, lodging and foode. He came to the country of the Chichimechas and arriued at Panuco. When he came to Mexico, hee ware his haire very long, and his beard tyed vp in a lace, and reported strange things of the lands, riuers and mountaines that he had passed.

It griued Don Antonio de Mendoca very much that the army retuned home: for he had spent aboue threescore thousand pesos of golde in the enterprise, and ought a great part thereof stile. Many sought to haue dwelt there; but Francis Vasquez de Coronado, which

was rich, and lately married to a faire wife, would not consent, saying, that they could not maintaine nor defend themselues in so poore a countrey, and so farre from succour. They trauailed aboue nine hundred leagues in this countrey.

The foresayd Francis de Gomara in his generall historie of the West Indies, chap. 215, writeth in manner following of certaine great and strange beasts neuer seene nor heard of in our known world of Asia, Europe, and Africa: which somewhat resembling our oxen, hauing high bunches their backes like those on the backes of Camels are therefore called Vacas corcobados, that is to say, Crooke backed oxen, being very deformed and terrible in shewe, and fierce by nature: which notwithstanding for foode, apparell, and other necessarie vses, are most seruiceable and beneficiall to the inhabitants of those countreys. He reporteth also in the same chapter of certaine strange sheepe as bigge as horses, and of dogs which vse to carie burthens of 50. pound weight vpon their backes.

All the way betweene Cicuic and Quiuira is a most plaine soyle, without trees and stones, and hath but fewe and small townes. The men clothe and shooe themselves with lether; and the women which are esteemed for their long lockes, cover their heads and secrets with the same. They haue no bread of any kinde of graine, as they say: which I account a very great matter. Their chieftest foode is flesh, and that oftentimes they eate raw, either of custome or for lacke of wood. They eate the fatte as they take it out of the Oxe, and drinke the blood hotte, and die not therewithall, though the ancient writers say that it killeth, as Empedocles and others affirmed, they drunke it also colde dissolued in water. They seeth not the flesh for lacke of pots, but rost it, or to say more properly, warme it at a fire of Oxe-dung: when they eate they chawe their meate but little, and rauens vp much, and holding the flesh with their teeth, they cut with rasors of stone, which seemeth to be great bestialitie: but such is their manner of liuing and fashion. They goe together in companies, and mooue from one place to another, as the wilde Moores of Barbarie called Alarbes doe, following the seasons and the pasture after their Oxen.

These Oxen are of the bigness and colour of our Bulles, but their hornes are not so great. They haue a great bunch vpon their fore shoulders and more haire on their fore part then on their hinder part: and it is like wooll. They haue as it were an horse-manne vpon their backe bone, and much haire and very long from the knees downward. They haue great tuffes of haire hanging downe their fore heads and it seemeth that they haue beardes, because of the great store of haire hanging downe at their chinnes and throats. The males haue very long tailes, and a great knobbe or flocke at the end: so that in some respect they resemble the Lion, and in some other the Camell. They push with their hornes, they runne, they ouertake and kill an horse when they are

in their rage and anger. Finally, it is a foule and fierce beast of countenance and forme of bodie. The horses fledde from them either because of their deformed shape, or else because they had neuer seene them. Their masters haue no other riches nor substance: of them they eat, they drink, they apparel, they shooe themselves: and of their hides they make many things, as houses, shooes, apparell and ropes: of their bones they make bodkins: of their sinewes and haire, threed: of their hornes, mawes, and bladders, vessels: of their dung, fire: and of their calves-skinnes, budgets, wherein they drawe and keepe water. To be short they make so many things of them as they haue neede of, or as many as suffice them in the vse of this life.

RELACION POSTRERA DE SIVOLA.

Señor Joaquin Garcia Icazbalceta copied for Mr. Winship, which he translated, the Spanish text of the *Relacion de Sivola*.¹

This extract of the translation describes certain customs of the hunter nations encountered by Coronado on the Plains:

These cows are like those of Castile, and somewhat larger, as they have a little hump on the withers, and they are more reddish, approaching black; their hair, more than a span long, hangs down around their horns and ears and chin, and along the neck and shoulders like manes, and down from the knees; all the rest is a very fine wool, like merino; they have very good, tender meat, and much fat. Having proceeded many days through these plains, they came to a settlement of about 200 inhabited houses. The houses were made of the skins of the cows, tanned white, like pavilions or army tents. The maintenance or sustenance of these Indians comes entirely from the cows, because they neither sow nor reap corn. With the skins they make their houses, with the skins they clothe and shoe themselves, of the skins they make rope, and also of the wool; from the sinews they make thread, with which they sew their clothes and also their houses; from the bones they make awls; the dung serves them for wood, because there is nothing else in that country; the stomachs serve them for pitchers and vessels from which they drink; they live on the flesh; they sometimes eat it half roasted and warmed over the dung, at other times raw; seizing it with their fingers, they pull it out with one hand and with a flint knife in the other they cut off mouthfuls, and thus swallow it half chewed; they eat the fat raw, without warming it; they drink the blood just as it leaves the cows, and at other times after it has run out out, cold and raw; they have no other means of livelihood. These people have dogs like

¹ Winship's *Coronado Expedition*, pp. 570-571.

those in this country, except that they are sometimes larger, and they load these dogs like beasts of burden, and make saddles for them like our pack saddles, and they fasten them with their leather thongs, and these make their backs sore on the withers like pack animals. When they go hunting, they load these with their necessities, and when they move—for these Indians are not settled in one place, since they travel wherever the cows move, to support themselves—these dogs carry their houses, and they have the sticks of their houses dragging along tied on to the pack-saddles, besides the load which they carry on top, and the load may be, according to the dog, from 35 to 50 pounds. It is 30 leagues, or even more, from Cibola to these plains where they went. The plains stretch away beyond, nobody knows how far. The captain, Francisco Vazquez, went further across the plains, with 30 horsemen, and Friar Juan de Padilla, with him; all the rest of the force returned to the settlement at the river to wait for Francisco Vazquez, because this was his command. It is not known whether he has returned.

GENERAL SIMPSON'S LOCATION OF THE SITE OF QUIVIRA.

General J. H. Simpson on pp. 309-340, *Smithsonian Report*, 1869, presented a critical essay concerning Coronado's March, which has been widely quoted.

There is a map accompanying the essay (p. 309), and it is from that map the dotted line, *a. a*, appearing on the archaeological chart, was taken.

Coronado's route, according to General Simpson, was across the Arkansas River and across the Kansas also, *through* the region where now is found the old village sites described. General Simpson seems to have taken Coronado at his word, literally, "** * the place I have reached is the 40° of latitude * * **" and, on the map, placed Quivira at that position on the Missouri in Northeastern Kansas and South eastern Nebraska.

He says (p. 337-338):

No; I am of opinion that Coronado and his army marched just as Castañeda, Jaramillo, and Coronado have reported; that is, generally in a northeast direction, over extensive plains, through countless herds of buffaloes and prairie-dog villages, and at length, after getting in a manner lost, and finding, as the chronicler says, they had gone "too far toward Florida," that is, to the eastward, and had traveled from Tiguex for thirty-seven days, or a distance of between 700 and

800 miles, their provisions failing them, the main body turned back to Tiguex; and Coronado, with thirty-six picked men, continued his explorations northwardly to the 40° of latitude, where he reached a province which the Indians called Quivira, in which he expected to find a city containing remarkable houses and stores of gold, but which turned out to be only the abode of very wild Indians, who lived in miserable wigwams, and knew nothing about gold.

If General Simpson had placed Quivira at the crossing of the Kansas River, as laid down on his map, (and that point is north of 39°), it would have been near an important group of Indian Village sites.

ONE OF MR. BANDELIER'S DESCRIPTIONS OF THE ROUTE FOLLOWED BY CORONADO AFTER HE LEFT THE RIO GRANDE.

In a paper on page 551, Vol. 15, *American Catholic Quarterly Review*, 1890, Mr. A. F. Bandelier, discussing Coronado's route after leaving Tiguex in 1541, unhesitatingly made the following statement:

* * * * * For the purpose of this paper a careful examination of the route taken by the Spaniards on their trip to and from Quivira, and identifications of the localities and of the tribes met, are indispensable. Quivira was the place where, subsequently, Father Padilla sacrificed his life as a missionary. We must therefore ascertain where Quivira was, what it was, and what people were its inhabitants. The data at our command, while comparatively meagre, yet are still, perhaps, more complete than any yet brought to bear upon the subject, and we therefore don't hesitate in undertaking the task. Should subsequent investigations alter our conclusions or confirm them we shall feel only too happy.

It is unimportant to determine the route followed by Coronado from Bernalillo to Pecos. From Pecos he marched to the northeast, and, after crossing a deep river, found himself on the plains on the 12th of May. The deep river was the Canadian. Between it and the Pecos village he had, according to the eye-witness, Jaramillo, crossed two creeks; one of these was the Rio Pecos, the other the Gallinas. To cross the Canadian it was necessary to build a bridge. No other river four days march northeast of Pecos, is wide and deep enough to require such preparations for its crossing.

Beyond the Canadian the plains were reached, and ten days after the crossing had been affected the first Indians of the plains, the Querechos or Apaches (subsequently called Vaqueros), were met. Here the Spaniards changed their course from northeast toward the rising sun,

that is almost due east. Very soon they met enormous herds of American bisons or buffalos.

It is well to note this change in direction; it is also well to observe that soon the Spaniards found out that their Indian guides had lost their reckoning. It is a constant fact, that any one lost on the plains inclines to the right, and finally describes a circle. After thirty-seven days of march the Spanish army halted on the banks of a stream which flowed at the bottom of a broad and deep ravine. For several days past the appearance of the country had begun to change; a more exuberant vegetation had made its appearance, and Indian villages were met with whose inhabitants were clothed. There was in the Spanish troop one man especially charged with counting the steps in order to approximate the distances. According to his reckoning they were then, at the end of thirty-seven days, two hundred and fifty leagues or six hundred and seventy-five miles from Bernalillo. But this distance cannot be taken as an air line. Coronado had marched to the northeast for seventeen days, thence first east, afterwards slightly south of east. We must also note that no other river had been met with since the crossing of the Canadian, except a small one at the bottom of a deep ravine, and which had been struck a few days previous. Owing to the direction and manner in which Coronado advanced, after crossing the Canadian, the only watercourse which he could have met at that distance was the Canadian again. The first stream was probably the north fork of that river, and the second, where the army came to a halt, was the main branch below the junction in the eastern part of the Indian Territory.

The place was occupied or roamed over by an Indian tribe which is called the Teyas. Who these Indians were we cannot attempt to decide. They tattooed themselves, either with paint or by incisions. This custom would tell in favor of their being the Jumanos, a semi-sedentary tribe shifting to and fro across the eastern part of New Mexico at the time. Leaving this matter undecided we must remark that the Teyas signified to Coronado that his guides had led him completely astray, the Quiviras being far to the north of the place. Castaneda adds that those guides had led Coronado in too southerly a direction: "Too near to Florida." This is a further confirmation of what we have said, namely, that the Spaniards marched like people losing their reckoning on the plains, in a circle or arc of a circle, first northeast, then east, afterwards even south of east.

At this place Coronado left the main body and with twenty-nine horsemen, and probably Father Padilla, struck out for Quivira. He moved northward, and at the end of about forty days (the number is variously given) a large river was reached, which he crossed to its northerly bank and followed its course to the northeast for upwards of twenty days. Finally turning to the north inland he reached, after sixty-seven days of short marches and occasional delays, the region called Quivira. The great river north of the Canadian can only have

been the Arkansas, and they struck it at some point below Fort Dodge, whence the river flows to the northeast. It is noteworthy also that Jaramillo states, while going in that direction, they descended the course of the stream.

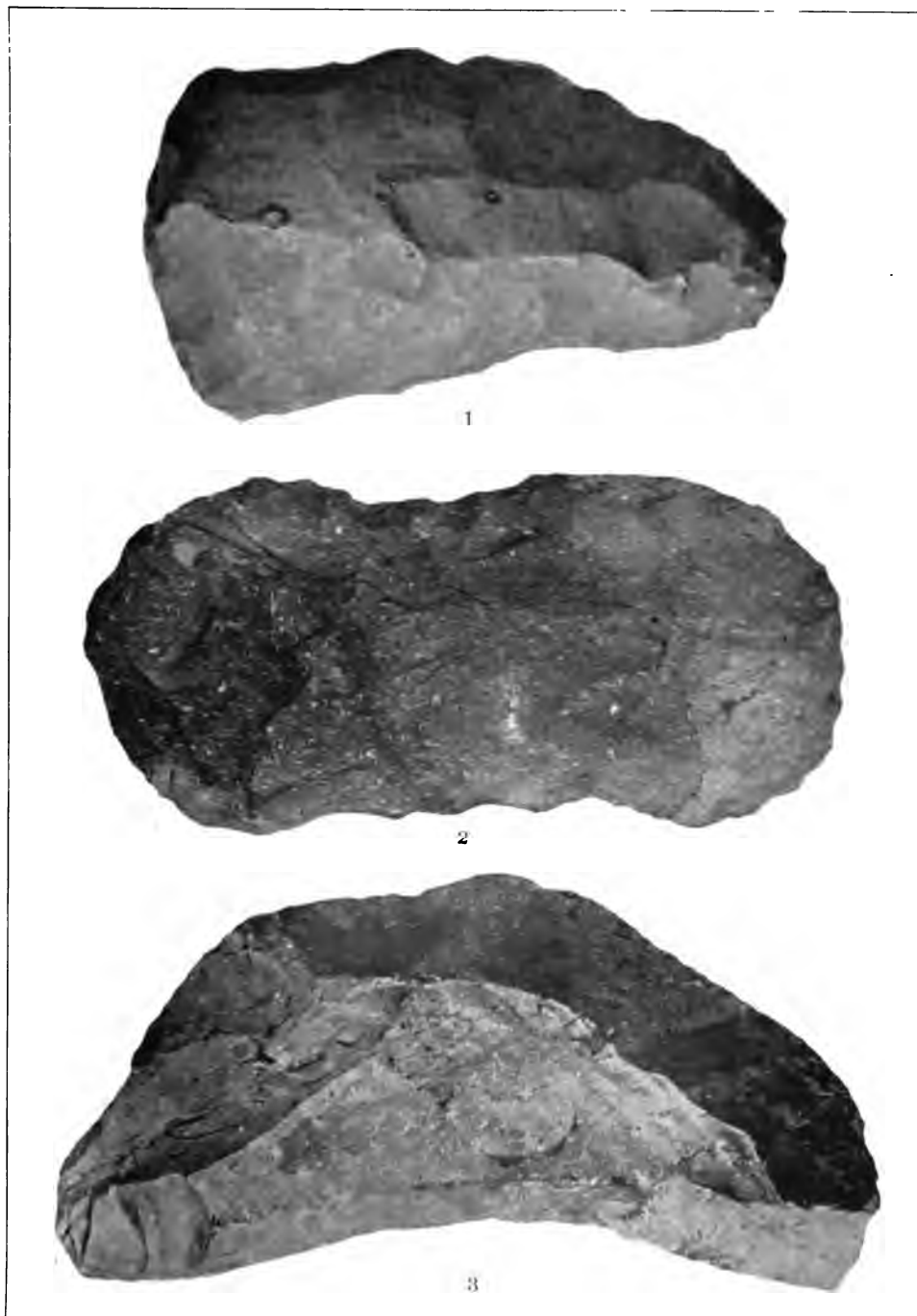
It is therefore in Northeastern Kansas, perhaps not far from the boundary of Nebraska, that we must look for the homes of the Quiviras in the years 1541 to 1543. The descriptions of the country furnished by Coronado himself, by his Lieutenant, Jaramillo, and (from hearsay) by Castaneda, agree very well with the appearance of that country. As long as they remained south of the Arkansas the land was one great plain without timber and very little water; north of the Arkansas its aspect changed. * * * *

The Further description by Mr. Bandelier in the same paper of the death of Friar Juan de Padilla, at Quivira, the first white man known to have met death in Kansas, is well worth preservation upon the pages of history.

He says, quoting from Mota-Padilla:

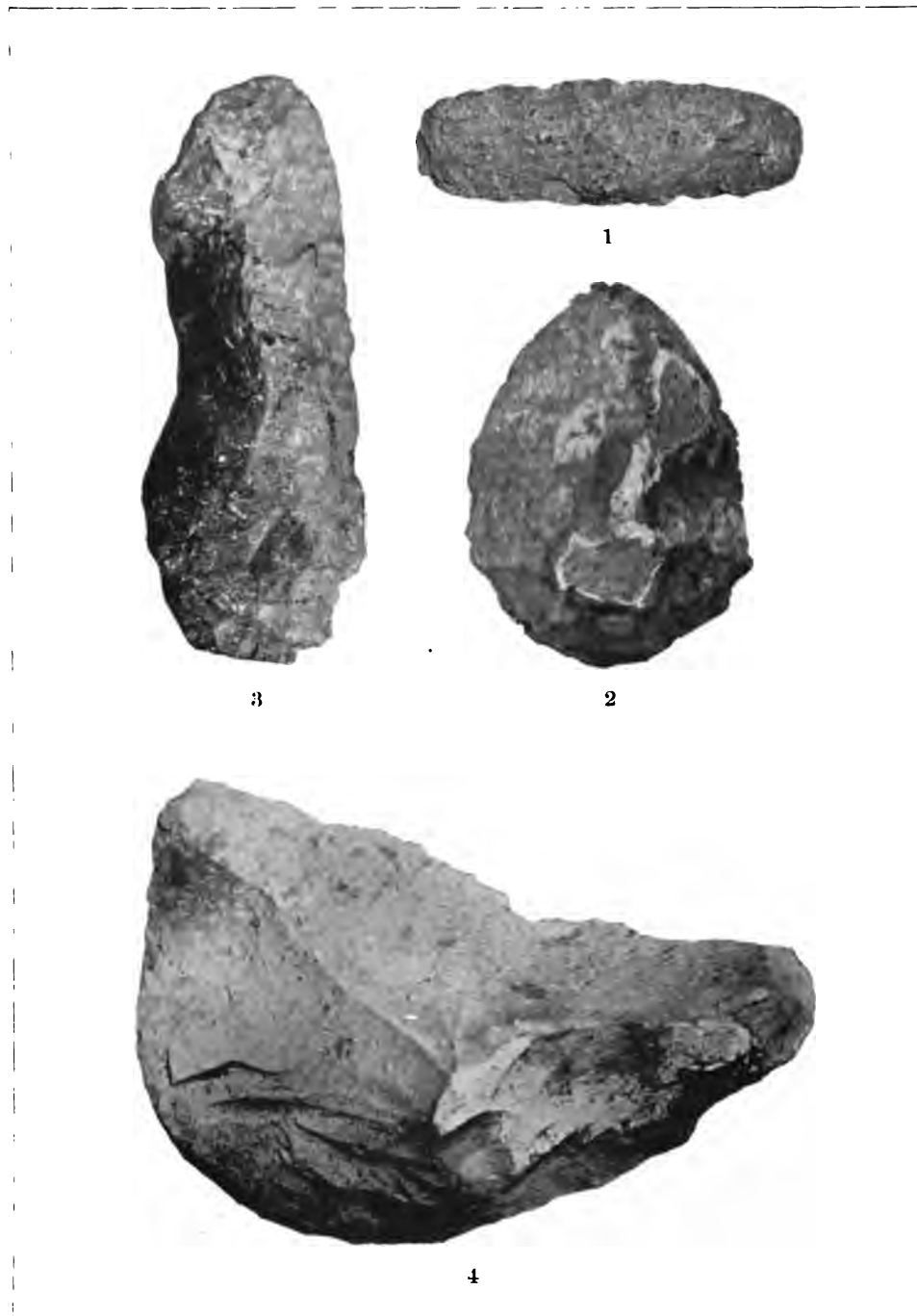
The Friar left Quivira with a small escort against the will of the Indians of that village, who loved him as their father. But at one day's journey he was met by Indians on the war-path, and knowing their evil intentions he requested the Portuguese to flee, since the latter was on horseback, and to take with him the Donados and the boys, who, being young, were able to run and save themselves. Being defenseless, they all fled as he desired, and the blessed father, kneeling down, offered up his life, which he sacrificed for the good of the souls of others. He thus realized his most ardent desire—the felicity of martyrdom by the arrows of these barbarians who afterwards threw his body into a pit and covered it with innumerable rocks.

These quotations seem to be sufficient for this present occasion, and the results of my own study of Coronado's discovery of Quivira, are stated in the conclusion.



CHIPPED IMPLEMENTS.
(Full Size).

1. Scraper from Hill Village Site.
2. Double Chert Tomahawk from Elliott Village Site.
3. Chert Knife from Elliott Village Site.



CHIPPED IMPLEMENTS FROM THE ELLIOTT SITE.

1. Chert Knife (One-half Size).
2. Chert Scraper (Full Size).
3. Chert Tomahawk (Full Size).
4. Chert Knife (One-half Size).



VARIOUS BEADS FROM THE VALLEY OF THE KANSAS RIVER.

- | | |
|--|---|
| a. Shell and Bone Beads, Baldwin Site. | d. Shell and Bone Beads from Griffing Collection. |
| b. Glass Beads, upper 26 from a mound. | e. Bone Beads from Historical Collection at Topeka. |
| c. Porcelain Beads found by Dr. Brous. | |

§ 10. CONCLUSION.

It seems to me that the researches of General J. H. Simpson, of Mr. Adolph F. Bandelier and of Mr. George Parker Winship concerning the discovery of Quivira by Coronado in 1541, and whose writings (referred to on p. xvi), I have closely studied, are so far-reaching and exhaustive that the acceptance of the conclusion offered by each of them, that Coronado, with a diminished number of his followers, crossed the Arkansas River within the limits of that part of the Western Plains now encompassed by the boundary of Kansas, will be a final result.

It does not satisfactorily appear that Coronado or any of his attendants, by astronomic observations, determined the degree of latitude farthest north on the line of march. That no such observations were made is probably indicated by the fact that attendants under orders paced the distance, certainly a part of the way. It might also be mentioned that the fortieth degree commences where the thirty-ninth ends, which is south of the Kansas River, and Coronado himself wrote: "The Province of Quivira is 950 leagues from Mexico. Where I reached it, it is in the fortieth degree." That would be approximately correct, in the valley of the Kansas River, and it does not seem to be necessary to reach the southern boundary of Nebraska in order to be "in" 40° of north latitude from the equatorial base.

Professor Schott has intimated, in his remarks concerning the magnetic declination in 1541, that the variation was probably 0°, which may be understood to really mean that it was west of due north, rather than east, as the attraction of the magnetic pole as early as 1580 probably indicated a conjectural variation of 3° W. Without taking into consideration the condition of Coronado's "compass needle," about which nothing seems to be known, the truth must be most nearly arrived at by the same conjectural deductions, which lead to a present belief that Coronado, after he parted with the main body of his followers, somewhere in the country of the Querechos and Teyas, wherever that may have been, was guided onward to the north in search of Quivira by solar observations or by whatever magnetic appliances he had at the time, until he reached the river of Saints Peter and Paul, when Ysopete, the new guide, recognized the place and conducted the

Spaniards to the settlements down the north bank of the river. Under such conditions it is not probable that Coronado made any attempt to follow the needle after crossing the large river they had found, following its course northeast and thence to the settlements only a few days' travel beyond, passing from creek to creek and from village to village, until they finally arrived at the end of Quivira and heard of the settlements of Harahey, as described by Jaramillo.

In a study of General Simpson's, Mr. Bandelier's and Mr. Winship's routes they have suggested as Coronado's line of march from the winter quarters in the Tiguex country to Quivira, no one need necessarily point out or determine with exactness the localities traversed after the crossing of the Canadian River, northeast from Bernalillo, until the Spaniards reached and crossed the Arkansas, from which crossing onward, the description left us by the chroniclers is fairly good and the particular route easier to determine; for the rich lands, the creeks and streams, and many old Indian village sites, are near at hand, almost exactly comparable with the descriptions written down as a part of the history of the Coronado Expedition.

As an actual participant in crossing a part of the Western Plains in 1863, when buffalo-chips constituted the principal part of the fuel and alkaline salts a dangerous portion of the water, the experiences then encountered bring vividly to mind the descriptions recorded by the Spaniards on their way to Quivira. A body of troops moves slowly under such circumstances, and man on foot outstrips the horse in a lengthy and exhaustive march. The embarrassment of always bearing too far to the right was not experienced, and from ten to fourteen miles per day was considered to be an ample distance, except in the case of an urgent necessity. A scarcity of provisions, water and fuel, and only grazing for the animals, invariably retards any attempt to hasten the march, especially when the route of travel is unknown and unmarked. It is for these reasons that I do not believe that Coronado, at the time he separated from the main body of his force, near the Canadian River, could have been much farther east than 98° west longitude, if as far as that, and the circuitous rambling between the Canadian and Arkansas rivers, under the guidance of an Indian, who led on to an intended destruction, would account for the distance supposed to have been directly traversed, or possibly overestimated.

I have amply stated my ideas and views concerning the great chert deposits on both sides of the Kansas River and the richness of its valley, which, in connection with the creeks, hunting grounds, wild fruits and numerous advantages, attracted the savages to permanent settlements, as shown on the chart, and within easy marching distance by a small party from the Great Bend of the Arkansas during the period of a few days, with nothing in the way to retard or delay the progress of the Spanish discoverers. The settlements at Quivira must certainly have been permanent, for two of the Indians from there were found on

the Rio Grande, where reports of the importance of the province preceded the Spaniards.

Mr. Bandelier, in his article concerning Friar Juan de Padilla (*Catholic Quarterly Review*, Vol. 15), quoting Mota-Padilla, has described that the barbarians who killed the martyred father "threw his body into a pit and covered it with innumerable stones." The barbarians who occupied the valley of the Kansas covered their dead with mounds of stone, and it seems more than a coincidence that the holy father's body should find a final rest at Quivira with similar rites. It is proper to state here that the narrative of Castañeda says that "the Indians from New Spain who accompanied the friar were allowed by the murderers to bury him." This conflict of authorities is not the first or only one found in the Spanish chronicles.

Coronado marched from Tiguex, on the Rio Grande, for Quivira, April 23, 1541, and it was related by Jaramillo that on Saints Peter and Paul's Day they reached a large river, now recognized as the Arkansas. That would be sixty-eight days from Tiguex to the crossing of the Arkansas, not a long period for the distance traveled. The Council of Baltimore, in the *Catholic Manual of Prayer*, fixed June 29th as the Feast of Saints Peter and Paul, and it is on that record I base my idea of the time stated, although I do not know whether or not the date, June 29th, was the day celebrated 357 years ago as such by the spiritual advisers of Coronado. Most likely it was. There is this further fact, that the day, June 29th, is now celebrated in the Catholic church the following Sunday. But these considerations are somewhat speculative, though permissible.

I do not now attempt to give my idea of Coronado's line of march from Tiguex to a crossing of the Arkansas. It is as hard to solve as Soto's march through Florida, though by no means as complicated.

After crossing the Arkansas River and following its course northeast for several days to the region near the mouth of Walnut Creek, it is my opinion that Coronado was conducted by Ysopete direct to the villages of Quivira, and there are numerous weighty reasons for believing that those villages were on and near the upper course of the Kansas River. Should the final determination be that the Elliott Village Site was the site of one of the principal villages of Quivira, and I believe it was, then the line of march in 1541 would be from the Great Bend of the Arkansas to the Udden Village Site, fifty miles, thence northeast to McDowell Creek, seventy miles, in all 120 miles, and from thence Quivira was explored for nearly a month before the return march was commenced sometime in August, 1541.

If there is any better evidence in favor of a different locality, I shall be happy to stand corrected by the supremacy of historic truth, against the preservation of which no man should be permitted to interpose a selfish motive for the enhancement of personal ends.

The identity of the Quivira Indians and mound exploration on the Kansas River are questions which need further study.

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